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Vol. 4

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Corporate Data Network (CDN) Data Requirements Task

ORIGINAL

Preliminary Strategic Data Plan

Touche Ross and Company

Prepared for
U.S. Nuclear Regulatory
Commission

NUREG/CR-4322
Vol. 4

Corporate Data Network (CDN) Data Requirements Task

Preliminary Strategic Data Plan

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Prepared for
Division of Automated Information Services
Office of Resource Management
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
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I

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CORPORATE DATA NETWORK

DATA REQUIREMENTS TASK

PRELIMINARY

STRATEGIC DATA PLAN

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I. EXECUTIVE SUMMARY

This section summarizes the key elements of the preliminary Strategic Data Plan for the Corporate Data Network (CDN). Our summary is presented as follows:

- Background of the Data Requirements Task;
- Objective of the Strategic Data Plan;
- Overview of the CDN and the logical databases in the CDN;
- Approach to developing the plan;
- Evaluation criteria and methodology;
- Qualitative factors potentially affecting development priority;
- Development strategy summary; and
- Schedule and budget estimates.

This report contains terms which may not be familiar to the non-technical reader. To assist the reader, a short glossary of terms has been included as Appendix A.

A. BACKGROUND

The NRC has planned to centralize its information processing in a Corporate Data Network over a five year period. The new information processing environment will include shared databases, telecommunications, office automation tools, and state-of-the-art software. In order to implement this concept, Touche Ross & Co. was contracted to perform a general data requirements analysis for the shared databases and to develop a preliminary implementation plan. Other tasks associated with the CDN are also currently in progress through other contractors and Resource Management.

The Strategic Data Plan is the final step in the initial analysis and planning process for the shared databases. The Strategic Data Plan is based on information contained in the Enterprise Model, Data Dictionary, and Data Model developed by Touche Ross during January - June, 1985.

The Enterprise Model provided the NRC with:

- Agency-wide information requirements in the form of data entities; and

- Organizational demand patterns as the basis for clustering the entities into logical groups.

The Data Dictionary provided the NRC with:

- Definitions and example attributes for each entity; and
- Properties for each entity, including origin, access, volume, and frequency.

The Data Model further refined the data entity list and defined:

- Logical databases; and
- Entity relationships within databases and between databases.

Information from all three of these interim products formed the basis upon which the preliminary Strategic Data Plan has been developed.

B. OBJECTIVE

The objective of the Strategic Data Plan is to provide the NRC with a preliminary plan for implementing the shared database component of the Corporate Data Network. To support this objective, the plan includes a recommended schedule for development along with an analysis of qualitative factors that NRC management should consider in finalizing the plan. Recommendations are also provided on activities that should be accomplished prior to the start of development of the individual databases.

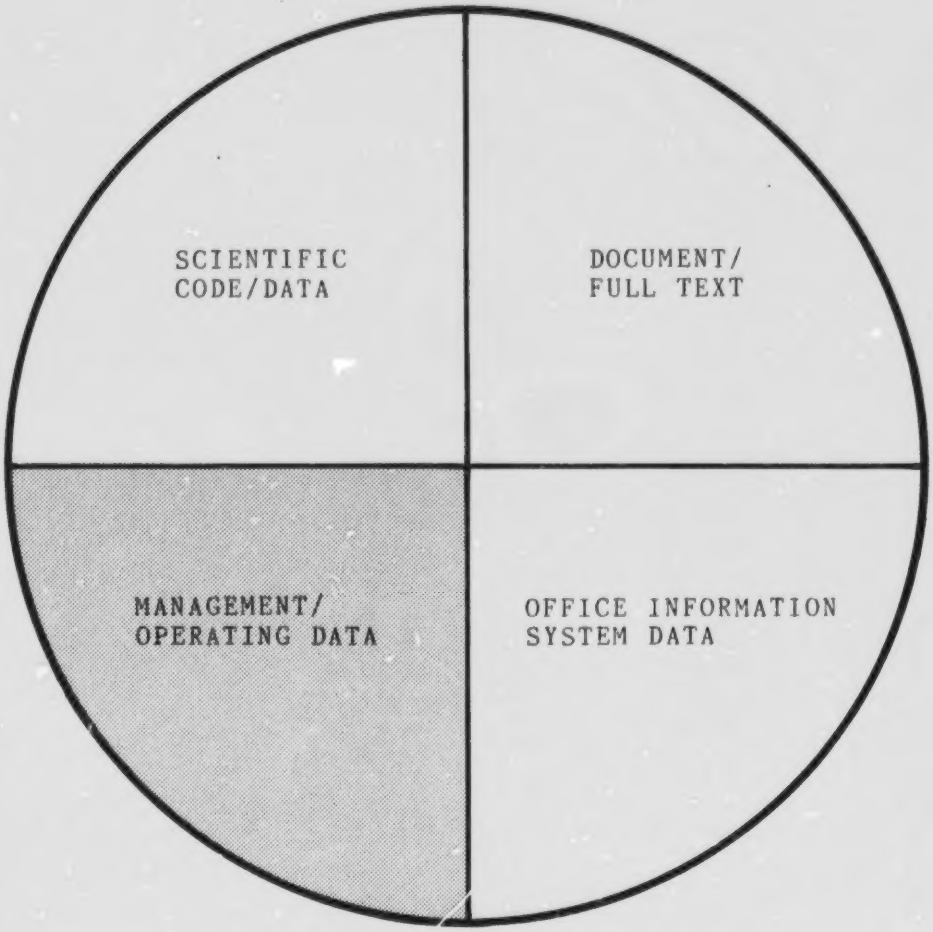
C. OVERVIEW OF CDN AND CONTENTS OF LOGICAL DATABASES

1. CDN Components

As shown in Exhibit I-1, the CDN will encompass four components -- management/operating data, scientific code/data, document/full text, and office information system data. The focus of the CDN Data Requirements Task performed by Touche Ross is on the management/operating data component of the CDN. The emphasis is on the data required for monitoring public health and safety and the necessary supporting administrative information. Therefore, the Strategic Data Plan does not include detailed information requirements for text, scientific code/data, or office information system data. The requirements for textual or scientific data were identified in the Enterprise Model and were grouped under the entity headings "document" and "scientific code/data", respectively.

EXHIBIT I-1

SCOPE OF DATA REQUIREMENTS TASK


SCIENTIFIC CODE/DATA
DOCUMENT/ FULL TEXT
MANAGEMENT/ OPERATING DATA
OFFICE INFORMATION SYSTEM DATA

CORPORATE DATA NETWORK

COMPONENTS

Some information will reside in both the data component and the document/full text component. For example, the full text of a report may be stored as a document, but data on that report might be collected and tracked in the data component. Similarly, scientific algorithms and resulting computations will be contained in the scientific code/data component, but the permanent record of the results might be placed in the data component of the CDN.

Some of the general purpose entities identified in the Enterprise Model (e.g., "meeting", "committee") may be stored in the office information system component. The decision to store the entities in this component will be made as a result of more detailed work in the development phase.

A CDN Index will allow the user to determine the location and access method for information in any one of the four components as shown in Exhibit I-2.

2. Logical Databases

The logical databases generated through the data modeling activities are shown in Exhibit I-3. The exhibit shows:

- 22 logical databases composed of 84 entities,
- 1 special purpose category containing 8 entities, and
- 1 general purpose category containing 6 entities.

The special purpose category was designed to accommodate entities which:

- Relate to other entities but cannot be logically clustered with any of the 22 groups (e.g., "fee", "cost standards"); or
- Contain data that is of a temporary nature (i.e., "open TMI item").

The general purpose category was designed to accommodate entities which are:

- Not closely related to any entities in the other 22 groups, and
- Required by most organizations.

These logical databases, special purpose entities, and general purpose entities were analyzed in developing the plan.

[illegible] AVAILABLE

EXHIBIT I-2

THE CDN INDEX WILL DIRECT USERS TO DATA LOCATIONS

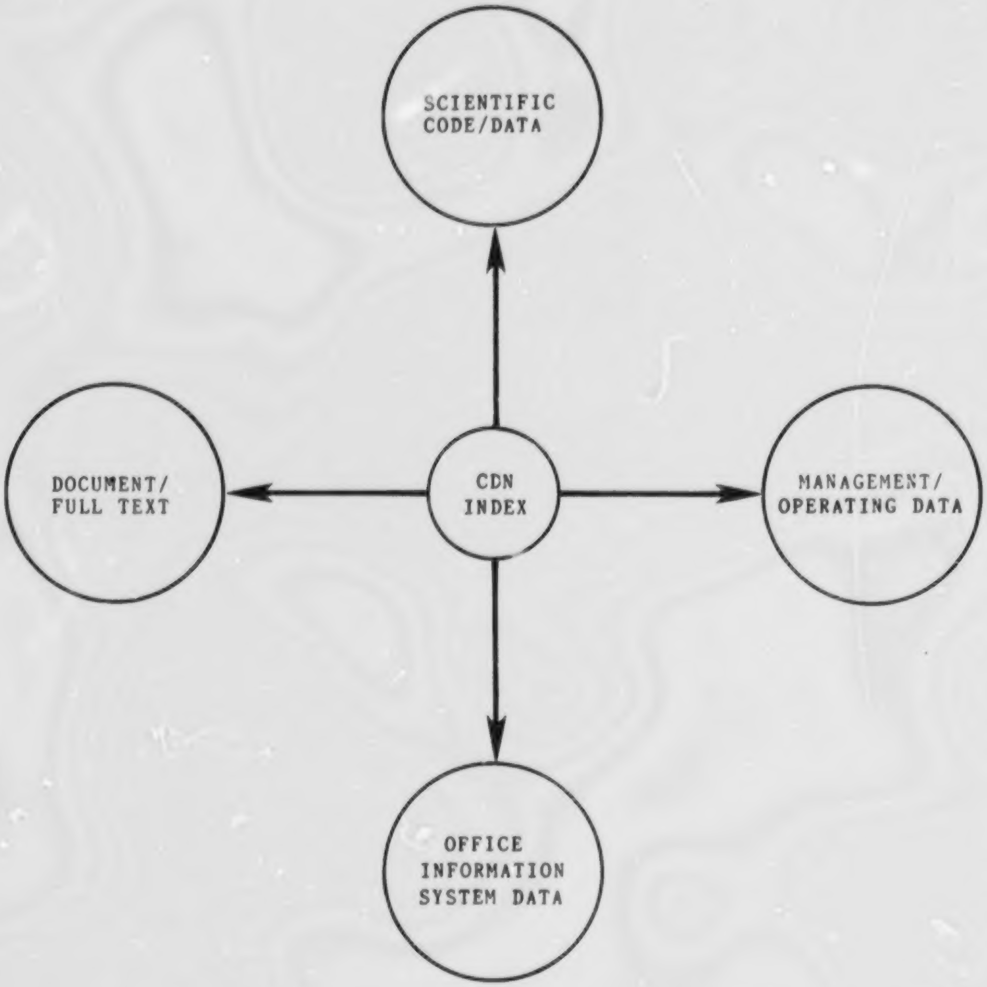

SCIENTIFIC CODE/DATA
DOCUMENT/ FULL TEXT
CDN INDEX
MANAGEMENT/ OPERATING DATA
OFFICE INFORMATION SYSTEM DATA

EXHIBIT I-3

LOGICAL DATABASES

ALLEGATION-DATABASE

ALLEGATION
INVESTIGATION (CASE)

BUILDING/PROPERTY-DATABASE

BUILDING (NRC)
EQUIPMENT (NRC TECHNICAL)
PHYSICAL SECURITY (NRC)
PROPERTY (NRC)
VISITOR

COMMISSION-DATABASE

COMMISSION ORDER
COMMISSION PAPER

ENFORCEMENT-DATABASE

DEVIATION
ENFORCEMENT ACTION
VIOLATION

EVENTS-DATABASE

EVENT
EXPOSURE
RELEASE
THREAT

FINANCE/ACCOUNTING-DATABASE

BUDGET
DECISION UNIT
G/L ACCOUNT
PLANNED ACCOMPLISHMENT
TRAVEL

HARDWARE-DATABASE

COMPONENT
DEFICIENCY
STRUCTURE
SYSTEM
TEST

INSPECTION-DATABASE

INSPECTION
INSPECTION MODULE
INSPECTION PROGRAM
OUTSTANDING ITEM (INSPECTION)

ISSUES-DATABASE

BACKFIT ISSUE
BULLETIN
GENERIC LETTER
GENERIC/US ISSUE
ISSUE (GENERAL)

LEGAL-DATABASE

APPEAL
CASE (LEGAL)
DECISION
HEARING
INTERVENOR
PETITION
PLEADING
WITNESS

LICENSE-DATABASE

LICENSE
LICENSE APPLICANT
LICENSE APPLICATION
LICENSEE
LICENSEE PLAN
TECHNICAL SPECIFICATION/LICENSE CONDITION

LICENSING ACTION-DATABASE

LICENSE COMMITMENT
LICENSING ACTION
OPEN ITEM (LICENSING)

OPERATOR-DATABASE

EXAMINATION (OPERATOR)
REACTOR OPERATOR

ORGANIZATION-DATABASE

ORGANIZATION
POSITION

PERSONNEL-DATABASE

EMPLOYEE (NRC)
RECRUIT/APPLICANT
PERSONNEL ACTION
GRIEVANCE

PROCUREMENT-DATABASE

PROVISION AGREEMENT
CONTRACTOR/PROVIDER (NRC)
PROVISION REQUEST

RADIOACTIVE MATERIALS-DATABASE

FUEL ASSEMBLY
PACKAGE
RADIOACTIVE MATERIAL (ACCOUNTABILITY)
SHIPMENT

REGULATORY-DATABASE

GUIDE/STANDARD (NRC)
INTERNATIONAL AGREEMENT
REGULATION
STATUTE

RESEARCH-DATABASE

INTERAGENCY AGREEMENT-TECHNICAL
RESEARCH PROGRAM

SITE-DATABASE

FACILITY (NON-REACTOR)
SITE
UNIT

STATE-DATABASE

DEMOGRAPHICS
ECONOMIC INFORMATION
POWER UTILITY
PUBLIC UTILITY COMMISSION
STATE

VENDOR-DATABASE

DESIGN
TOPICAL REPORT
VENDOR

SPECIAL PURPOSE ENTITIES

COST STANDARDS
DRILL
FEE
FOIA REQUEST
OPEN TMI ITEM
PATENT
TRAINING
UNION

GENERAL PURPOSE ENTITIES

ADVISOR/EXPERT/CONSULTANT
COMMITTEE
INQUIRY
MEETING
PROJECT
WORK ITEM

OTHER CDN COMPONENTS

CDN INDEX
DOCUMENT
SCIENTIFIC CODE/DATA

D. APPROACH

Our approach to developing the Strategic Data Plan involved the following major activities:

- Determining the quantitative criteria to be used in establishing priorities for development;
- Ranking each database on each of the criteria;
- Summing the ranks on each of the criteria for each database;
- Classifying the databases into three priority classes based on the sums of the ranks for each database;
- Identifying qualitative factors that could impact development priority;
- Preparing a detailed schedule for development based on quantitative factors only;
- Preparing an overall development strategy for finalizing and implementing the plan; and
- Estimating the order of magnitude cost of implementing the plan.

Our detailed analysis is presented in Section II.

E. EVALUATION CRITERIA AND METHODOLOGY

Six development priority criteria were selected to assess each of the databases. These criteria are:

- Man-days required to:
    - Develop and implement the databases and update applications,
    - Convert existing data, and
    - Develop user applications;
- Productivity gains estimated to be derived from implementing each database;
- Number of application subject areas supported by each database;
- Sequence of databases to maximize the development of health and safety application subject areas;
- Organizational usage of each database; and

- Record volume of each database.

The logical databases were ranked on each of these criteria. These ranks were then summed to obtain a total score. A summary of the total scores and relative priority classification of each of the databases is shown in Exhibit I-4. The databases were classified into priority categories of A, B or C with A as the highest priority.

General purpose entities and special purpose entities were analyzed as part of the overall evaluation. However, these entities were not ranked with the logical databases since they are not considered to form a logical database. The development schedule for these entities are addressed as part of our development strategy recommendations below.

Each of the criteria, evaluation of each of the databases on each of the criteria, and the assumptions used are presented in detail in Section II.

F. QUALITATIVE FACTORS POTENTIALLY AFFECTING DEVELOPMENT PRIORITY

In addition to considering the results of the quantitative evaluation of priority, there are qualitative factors which can potentially affect the development priority of the databases. Some of these qualitative factors were identified in the Enterprise Model. Other qualitative factors which must be analyzed concern management considerations. Our assessment of each of these factors is summarized in Exhibit I-5. A more detailed discussion of these issues is presented in Section II.

G. DEVELOPMENT STRATEGY RECOMMENDATIONS

We recommend that the NRC develop the CDN databases in three phases:

- PHASE I--FINALIZE DATABASE PRIORITIES AND DEVELOPMENT TOOLS
- PHASE II--DEVELOP AN INFRASTRUCTURE FOR DEVELOPMENT
- PHASE III--IMPLEMENT DATABASES

Below we summarize the key activities that should be included in each phase. Exhibit I-6 illustrates the overall schedule. Detail costs and schedules for Phase III can be found in Section III.

PHASE I--FINALIZE DATABASE PRIORITIES AND DEVELOPMENT TOOLS

The purpose of this phase is to make final assessments on the priority of database development as well as the tools to be used in

EXHIBIT I-4

LOGICAL DATABASE DEVELOPMENT PRIORITY CLASSIFICATIONS

Summary Rank by Development Criteria

Logical Database	Project Man-Days	Productivity Gains	Application Subject Areas Supported	Database Sequence	Organizational Usage	Record Volume	Total Score	Priority Classification
EVENTS	13	10	1	1	11	2	38	A
SITE	15	12	3	1	7	11	49	A
LICENSE	22	1	10	11	1	4	49	A
INSPECTION	12	13	6	8	6	8	53	A
ISSUES	10	2	11	14	2	15	54	B
HARDWARE	18	5	18	4	4	6	55	B
LEGAL	16	4	6	12	5	14	57	B
REGULATORY	8	7	6	8	9	19	57	B
ENFORCEMENT	5	8	13	12	10	12	60	B
RADIOACTIVE MATERIALS	17	18	6	1	19	1	62	B
FINANCE/ACCOUNTING	21	6	5	20	3	7	62	B
LICENSING ACTION	6	15	13	17	8	10	69	B
ORGANIZATION	9	10	1	14	21	16	71	B
PROCUREMENT	19	3	11	19	20	3	75	B
PERSONNEL	20	14	3	20	12	9	78	B
VENDOR	7	16	18	8	13	17	79	B
OPERATOR	2	22	16	7	22	13	82	B
ALLEGATION	4	18	13	17	15	18	85	C
RESEARCH	3	21	18	4	17	22	85	C
STATE	11	17	16	6	14	21	85	C
BUILDING/PROPERTY	14	9	22	22	16	5	88	C
COMMISSION	1	20	18	16	18	20	93	C
SPECIAL PURPOSE ENTITIES	*	*	*	*	*	*	*	*
GENERAL PURPOSE ENTITIES	*	*	*	*	*	*	*	*

*Note: Not ranked. Entities do not form a logical database.

	Total Score
Mean	68
Std. Deviation	15

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EXHIBIT I-5

POTENTIAL IMPACT OF QUALITATIVE FACTORS ON DEVELOPMENT PRIORITY

ENTERPRISE MODEL ISSUES

QUALITATIVE FACTOR	DATABASE POTENTIALLY IMPACTED	POTENTIAL IMPACT ON PRIORITY
REDUCTION IN LICENSES	ISSUES	INCREASE
BUDGET CUTBACKS	ALL	INCREASE
FOIA REQUEST INCREASE	FOIA ENTITY	NONE
STANDARD REACTOR DESIGN	SITE, HARDWARE	NONE
DECREASE LICENSE TIME	LICENSE, LICENSING ACTION	NONE
CONSISTENCY WITH INDUSTRY STANDARDS	TBD	NONE
INCREASE IN HIGH LEVEL WASTE	NEW DATABASE	INCREASE
INCREASE IN RESIDENT INSPECTORS	INSPECTION	INCREASE
INCREASE IN AGREEMENT STATES	STATE	NONE
EX PARTE	TBD	TBD
REGULATORY CHANGE	CASE-BY-CASE BASIS	INCREASE OR DECREASE
SHARE DATA OUTSIDE NRC	TBD	NONE
INCREASE IN ALLEGATIONS	ALLEGATIONS	INCREASE
CONSOLIDATE OFFICES	NONE	NONE
CHANGE IN OFFICE GOALS	ANY	NONE
CHARGEBACK METHODOLOGY	FINANCE/ACCOUNTING	NONE

EXHIBIT I-5
(CONT'D)

MANAGEMENT CONSIDERATIONS

QUALITATIVE FACTOR	DATABASE POTENTIALLY IMPACTED	POTENTIAL IMPACT ON PRIORITY
STATUS OF CURRENT SYSTEMS	EVENTS	DECREASE
	FINANCE/ACCOUNTING	DECREASE
	RADIOACTIVE MATERIALS	DECREASE
	ALLEGATIONS	DECREASE
	LICENSE	DECREASE
DATA DEPENDENCY	ANY	INCREASE OR DECREASE
LEVEL OF DETAIL	HARDWARE	INCREASE
DATA AVAILABILITY	HARDWARE	DECREASE
DATA CONVERSION	CASE-BY-CASE	NONE
DATA MAINTENANCE	CASE-BY-CASE	NONE
DEVELOPMENT RESOURCES	CASE-BY-CASE	UNKNOWN
USER ACCEPTANCE	CASE-BY-CASE	NONE
COMPLEXITY	CASE-BY-CASE	INCREASE OR DECREASE
USER LEVEL OF EFFORT	CASE-BY-CASE	INCREASE OR DECREASE

AVAILABLE

EXHIBIT I-6

OVERALL CDN DATABASE DEVELOPMENT SCHEDULE

```
                                                          MONTHS FROM START
          CDN PLAN PHASE
-----------------------------------     1         2         3         4         5         6         7         8         9        10        11      12.........68
-----------------------------------------------------------------------------------------------------------------------------------------------------------------

PHASE I--FINALIZE DATABASE         ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
         PRIORITIES AND
         DEVELOPMENT TOOLS


PHASE II--DEVELOP                                      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
           INFRASTRUCTURE


PHASE III--IMPLEMENT DATABASES                                                                                     +++++++++++++++++++++++++++++++++.............+++
```

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developing the databases. Modifications to the preliminary strategic data plan should be made as required.

I-1 Evaluate qualitative factors.

RM/D should evaluate the qualitative factors discussed in Section II, consult with the CDN liaisons to obtain the perspective of each of the offices, and make recommendations on any changes in development priorities to the ADP Steering Group. Each of the qualitative factors can affect the relative priority of development for the databases (currently, priority is established on a quantitative basis). The ADP Steering Group should make a decision on whether or not the development priority should be modified based on RM/D's recommendations. If priorities are changed, the detail schedules for Phase III should also be updated.

I-2 Finalize the approach for general/special entities.

Currently, the entities that are included in the general and special purpose categories are not priority ranked, because these categories are not considered to be logical databases. Each entity should be reviewed and a decision made on when to implement the entity. For example, the "Fee" entity could be implemented at the same time as the Finance/Accounting database; the "Training" entity could be implemented at the same time as the Personnel database.

I-3 Conduct a pilot program to test development tools.

A major strategy in the development of the CDN databases will be to use DBMS, fourth generation language, and microcomputer-based development tools. In order to properly utilize these tools in the context of this plan, the NRC should demonstrate and evaluate the development process using these tools prior to beginning full-scale development. These tools should be used to develop prototypes of one or two key entities for:

- Detail user requirements;
- A database and its associated update application; and
- A user (reporting) application.

Each prototype should be assessed and evaluated. Recommendations for improvement in the use of each tool should be made. Key management issues should also be identified and proposed strategies for their resolution documented.

Based on the results of the prototypes, refinements to the preliminary strategic data plan should be made as necessary.

PHASE II--DEVELOP AN INFRASTRUCTURE FOR DEVELOPMENT

The purpose of this phase is to organize various NRC offices into an infrastructure that will accommodate both the development and operation of the CDN.

II-1 Develop database functions within RM/D.

Key database functions should be developed within the RM/D organization to address database administration and data analysis. These functions will be critical to the development and operation of the CDN by establishing standards and guidelines for software development, use of the data dictionary, and communications between technical, data administration and user personnel.

II-2 Develop a strategy for integrating other tasks of the CDN.

In developing the shared databases the NRC must ensure that other related activities are integrated with the those identified in this plan. Key areas that should be addressed include:

- Telecommunications;
- Hardware (e.g., timesharing and microcomputers);
- Software (both mainframe and microcomputer); and
- Office automation tools.

The NRC needs to plan for the integration of these activities and establish an integration team with responsibility for monitoring the integration.

II-3 Assign Data Maintenance Responsibilities.

Before any development activities can begin, responsibility for maintaining (i.e., creating and updating) data in the various databases must be established. The organizations who are identified as having data maintenance responsibility should be the lead organizations in the design, development and implementation efforts. Appropriate user staff in these organizations should be designated to work with the development team. These individuals should also form the membership of the ADP Working Groups for each of the database projects.

II-4 Expand the Phase I pilot program.

The entity level prototypes developed in Phase I should be expanded to simulate a more complete operation. Expansion can occur by converting current operational data into the prototype system, adding more entities to the prototype, and by increasing the number of users who have access to the prototype. This will provide the NRC with the opportunity to increase its experience with the various development tools and in the actual operation of a database (i.e., both users and technical staff will begin to "climb up" the learning curve before full scale implementation begins in Phase III).

PHASE III--IMPLEMENT DATABASES

The purpose of this phase is to implement the databases identified in this plan. Databases should be implemented sequentially (i.e., one-by-one) in the first one to two years to allow for an orderly progression of development. After the NRC has gained sufficient experience, development should occur in parallel (i.e., multiple, concurrent projects).

H. SCHEDULE AND BUDGET ESTIMATES

A summary schedule based on this strategy is shown in Exhibit I-7. Since site data will be frequently referenced by other databases including all of the Class A priority databases (Events, License, Inspection), we scheduled the Site database as the first development project. All other databases are scheduled in the order of priority based strictly on quantitative factors. This schedule plans for all work to be completed in a five year period from the start of Phase III, and assumes that the appropriate level of resources will be applied based on the level of effort estimates provided in this plan. No dates are shown on the schedule since the start date is uncertain. Detailed assumptions and schedules are discussed in Section III.

A summary of the anticipated man-days for each of the major activities of developing and implementing the databases is shown in Exhibit I-8.

To assist the NRC in budgeting for the database projects, we applied some costing assumptions based on survey data to the man-days and developed an estimate of the cost. A summary of the cost estimates is shown in Exhibit I-9. Detailed cost estimates for each of the major tasks are provided in Section III. These estimates are only an approximation of the anticipated total cost to develop each of the databases. Costs could vary as a result of estimating standards, procurement delays, technical difficulties

```
:* * * * * * * * * * * * * * * * * * * * * * * * *:
:THESE ESTIMATES ARE ONLY AN APPROXIMATION.      :
:VARIATIONS COULD OCCUR FROM PROCUREMENT         :
:DELAYS, TECHNICAL DIFFICULTIES, ISSUE           :
:RESOLUTION OR OTHER FACTORS.  ESTIMATES         :
:COULD BE HIGHER OR LOWER BY 25%.                :
:* * * * * * * * * * * * * * * * * * * * * * * * *:
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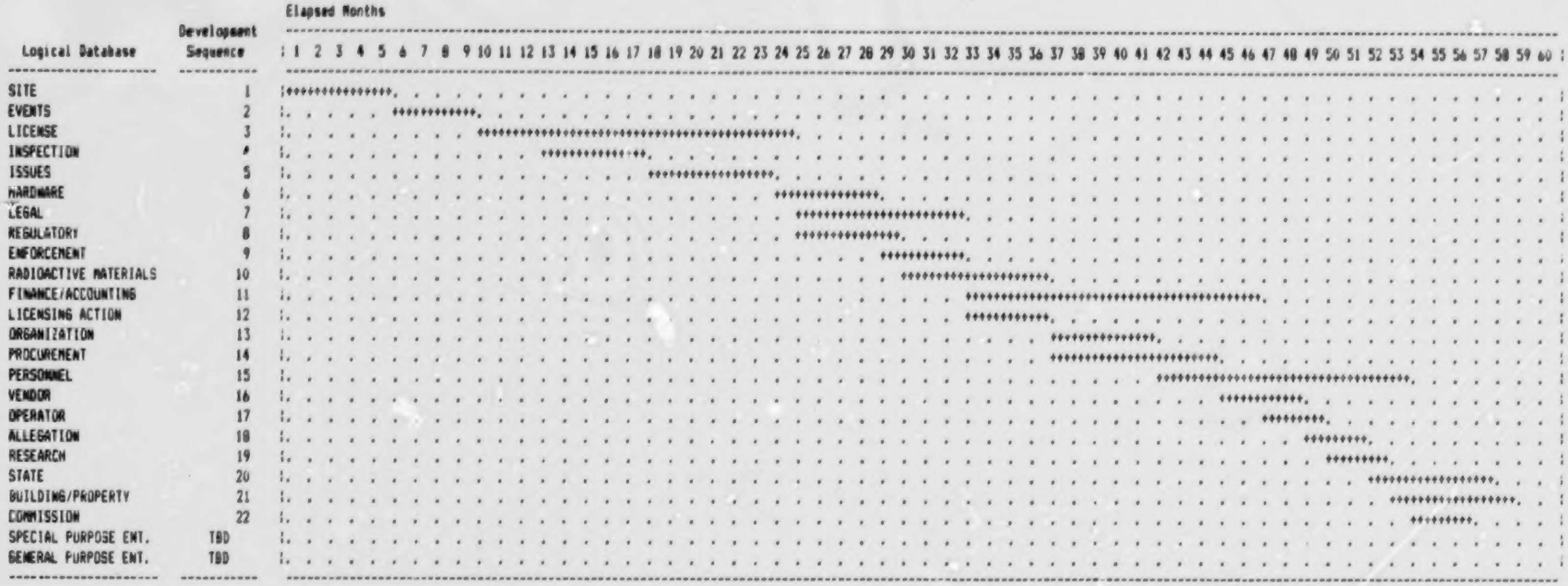
EXHIBIT I-7 PHASE III DATABASE IMPLEMENTATION SCHEDULE



16

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT I-8

TOTAL PROJECT MAN-DAYS

Logical Database	Database Development		Database Update Appl. Development		Implementation		Data Conversion		User Applications Development		Project Totals		
	Total Contractor	Total NRC	Total Contractor	Total NRC	Total Contractor	Total NRC	Total Contractor	Total NRC	Total Contractor	Total NRC	Contractor	NRC	Total
ALLEGATION	168	150	29	23	41	47	55	47	86	73	379	338	717
BUILDING/PROPERTY	351	314	72	56	96	108	178	152	216	181	912	811	1,723
COMMISSION	149	133	29	23	39	44	14	12	86	73	317	284	600
ENFORCEMENT	240	215	43	34	61	69	41	35	129	109	515	461	975
EVENTS	310	277	58	45	80	90	259	222	173	145	879	779	1,658
FINANCE/ACCOUNTING	1,044	932	216	169	286	324	300	257	647	544	2,493	2,226	4,718
HARDWARE	376	336	72	56	99	111	464	397	216	181	1,227	1,082	2,309
INSPECTION	313	280	58	45	80	91	246	210	173	145	869	771	1,640
ISSUES	373	333	72	56	98	111	27	23	216	181	786	705	1,491
LEGAL	553	494	115	90	152	172	41	35	345	290	1,207	1,082	2,288
LICENSE	1,139	1,017	216	169	297	335	724	619	647	544	3,021	2,684	5,706
LICENSING ACTION	221	198	43	34	59	66	68	58	129	109	521	465	986
OPERATOR	145	130	29	23	39	44	27	23	86	73	327	292	619
ORGANIZATION	142	127	29	23	39	44	492	421	86	73	787	686	1,474
PERSONNEL	844	754	173	135	230	260	287	245	518	435	2,051	1,830	3,881
PROCUREMENT	436	390	86	68	117	132	656	561	259	218	1,554	1,368	2,921
RADIOACTIVE MATERIALS	498	445	86	68	123	139	246	210	259	218	1,212	1,080	2,292
REGULATORY	297	266	58	45	78	89	41	35	173	145	647	579	1,226
RESEARCH	164	147	29	23	41	46	55	47	86	73	375	335	710
SITE	269	240	43	34	64	72	492	421	129	109	997	876	1,872
STATE	348	311	72	56	95	108	96	82	216	181	826	738	1,564
VENDOR	212	189	43	34	58	65	191	164	129	109	633	561	1,194
SPECIAL PURPOSE ENT.	534	477	115	90	150	170	68	58	345	290	1,213	1,086	2,299
GENERAL PURPOSE ENT.	386	345	86	68	111	126	355	304	259	218	1,197	1,059	2,256
Total	9,514	8,499	1,869	1,463	2,533	2,863	5,422	4,640	5,606	4,713	24,944	22,177	47,121
Mean	396	354	78	61	106	119	226	193	234	196	1,039	924	1,963

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|* *|
|THESE ESTIMATES ARE ONLY AN APPROXIMATION. |
|VARIATIONS COULD OCCUR FROM PROCUREMENT |
|DELAYS, TECHNICAL DIFFICULTIES, ISSUE |
|RESOLUTION OR OTHER FACTORS. ESTIMATES |
|COULD BE HIGHER OR LOWER BY 25%. |
|* *|

EXHIBIT I-9

TOTAL COST ESTIMATE^
(In 1985 Dollars)

Logical Database	Database Development	Database Update Appl. Development	Implementation	Data Conversion	User Applications Development	Subtotal Contractor Labor	Contractor Expenses @ 5%	Total Contractor	Timesharing Costs	Total Development Costs
ALLEGATION	$80,000	$13,000	$22,000	$26,000	$45,000	$186,000	$9,000	$195,000	$151,000	$346,000
BUILDING/PROPERTY	167,000	33,000	50,000	83,000	113,000	446,000	22,000	468,000	358,000	826,000
COMMISSION	71,000	13,000	20,000	6,000	45,000	155,000	8,000	163,000	135,000	298,000
ENFORCEMENT	114,000	20,000	32,000	19,000	68,000	253,000	13,000	266,000	214,000	480,000
EVENTS	147,000	26,000	42,000	121,000	90,000	426,000	21,000	447,000	320,000	767,000
FINANCE/ACCOUNTING	495,000	98,000	149,000	140,000	338,000	1,220,000	61,000	1,281,000	1,025,000	2,306,000
HARDWARE	179,000	33,000	51,000	217,000	113,000	593,000	30,000	623,000	423,000	1,046,000
INSPECTION	149,000	26,000	42,000	115,000	90,000	422,000	21,000	443,000	319,000	762,000
ISSUES	177,000	33,000	51,000	13,000	113,000	387,000	19,000	406,000	338,000	744,000
LEGAL	263,000	52,000	80,000	19,000	180,000	594,000	30,000	624,000	522,000	1,146,000
LICENSE	540,000	98,000	155,000	338,000	338,000	1,469,000	73,000	1,542,000	1,144,000	2,686,000
LICENSING ACTION	105,000	20,000	31,000	32,000	68,000	256,000	13,000	269,000	212,000	481,000
OPERATOR	69,000	13,000	20,000	13,000	45,000	160,000	8,000	168,000	137,000	305,000
ORGANIZATION	68,000	13,000	20,000	230,000	45,000	376,000	19,000	395,000	225,000	620,000
PERSONNEL	401,000	78,000	120,000	134,000	270,000	1,003,000	50,000	1,053,000	833,000	1,886,000
PROCUREMENT	207,000	39,000	61,000	306,000	135,000	748,000	37,000	785,000	520,000	1,305,000
RADIOACTIVE MATERIALS	236,000	39,000	64,000	115,000	135,000	589,000	29,000	618,000	466,000	1,084,000
REGULATORY	141,000	26,000	41,000	19,000	90,000	317,000	16,000	333,000	273,000	606,000
RESEARCH	78,000	13,000	21,000	26,000	45,000	183,000	9,000	192,000	150,000	342,000
SITE	128,000	20,000	33,000	230,000	68,000	479,000	24,000	503,000	312,000	815,000
STATE	165,000	33,000	50,000	45,000	113,000	406,000	20,000	426,000	341,000	767,000
VENDOR	101,000	20,000	30,000	89,000	68,000	308,000	15,000	323,000	231,000	554,000
SPECIAL PURPOSE ENTITIES	254,000	52,000	78,000	32,000	180,000	596,000	30,000	626,000	520,000	1,146,000
GENERAL PURPOSE ENTITIES	183,000	39,000	58,000	166,000	135,000	581,000	29,000	610,000	442,000	1,052,000
Total	$4,518,000	$850,000	$1,321,000	$2,534,000	$2,930,000	$12,153,000	$606,000	$12,759,000	$9,611,000	$22,370,000
Mean	$188,000	$35,000	$55,000	$106,000	$122,000	$506,000	$25,000	$532,000	$400,000	$932,000

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^Note: Amounts presented in this exhibit are rounded to the nearest thousand dollars.

(e.g., computer down-time), issue resolution or other factors. Therefore, these estimates could be higher or lower by as much as 25%. All estimates are presented in current dollars. No adjustment was made for inflation.

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Sections II and III of this report provide detailed information on the evaluation criteria and methodology and the schedule and budget estimates.

II.CRITERIA AND EVALUATION

II. CRITERIA AND EVALUATION

In this section we provide our detailed analysis supporting our development plan and schedule, including:

- Logical database descriptions;
- Quantitative evaluation criteria and methodology;
- Summary of the database scores and priority classifications of the databases based on the quantitative criteria; and
- Qualitative factors and their potential impact on the development priorities and schedule.

A. LOGICAL DATABASES

The logical databases generated through the data modeling activities are shown in Exhibit II-1. The exhibit shows:

- 22 logical databases composed of 84 entities,
- 1 special purpose category containing 8 entities, and
- 1 general purpose category containing 6 entities.

The special purpose category was designed to accommodate entities which:

- Relate to other entities but cannot be logically clustered with any of the 22 groups (e.g., "fee", "cost standards"); or
- Contain data that is of a temporary nature (i.e., "open TMI item").

The general purpose category was designed to accommodate entities which are:

- Not closely related to any entities in the other 22 groups, and
- Required by every organization.

For each of the 22 logical databases, there are one or two core entities through which all of the relationships within that database can be derived. These core entities are highlighted in Exhibit II-2. Only major relationships between databases were identified in the Data Model, issued to the NRC in June 1985.

EXHIBIT II-1

LOGICAL DATABASES

ALLEGATION-DATABASE

ALLEGATION
INVESTIGATION (CASE)

BUILDING/PROPERTY-DATABASE

BUILDING (NRC)
EQUIPMENT (NRC TECHNICAL)
PHYSICAL SECURITY (NRC)
PROPERTY (NRC)
VISITOR

COMMISSION-DATABASE

COMMISSION ORDER
COMMISSION PAPER

ENFORCEMENT-DATABASE

DEVIATION
ENFORCEMENT ACTION
VIOLATION

EVENTS-DATABASE

EVENT
EXPOSURE
RELEASE
THREAT

FINANCE/ACCOUNTING-DATABASE

BUDGET
DECISION UNIT
G/L ACCOUNT
PLANNED ACCOMPLISHMENT
TRAVEL

HARDWARE-DATABASE

COMPONENT
DEFICIENCY
STRUCTURE
SYSTEM
TEST

INSPECTION-DATABASE

INSPECTION
INSPECTION MODULE
INSPECTION PROGRAM
OUTSTANDING ITEM (INSPECTION)

ISSUES-DATABASE

BACKFIT ISSUE
BULLETIN
GENERIC LETTER
GENERIC/US ISSUE
ISSUE (GENERAL)

LEGAL-DATABASE

APPEAL
CASE (LEGAL)
DECISION
HEARING
INTERVENOR
PETITION
PLEADING
WITNESS

LICENSE-DATABASE

LICENSE
LICENSE APPLICANT
LICENSE APPLICATION
LICENSEE
LICENSEE PLAN
TECHNICAL SPECIFICATION/LICENSE CONDITION

LICENSING ACTION-DATABASE

LICENSE COMMITMENT
LICENSING ACTION
OPEN ITEM (LICENSING)

OPERATOR-DATABASE

EXAMINATION (OPERATOR)
REACTOR OPERATOR

ORGANIZATION-DATABASE

ORGANIZATION
POSITION

PERSONNEL-DATABASE

EMPLOYEE (NRC)
RECRUIT/APPLICANT
PERSONNEL ACTION
GRIEVANCE

PROCUREMENT-DATABASE

PROVISION AGREEMENT
CONTRACTOR/PROVIDER (NRC)
PROVISION REQUEST

RADIOACTIVE MATERIALS-DATABASE

FUEL ASSEMBLY
PACKAGE
RADIOACTIVE MATERIAL (ACCOUNTABILITY)
SHIPMENT

REGULATORY-DATABASE

GUIDE/STANDARD (NRC)
INTERNATIONAL AGREEMENT
REGULATION
STATUTE

RESEARCH-DATABASE

INTERAGENCY AGREEMENT-TECHNICAL
RESEARCH PROGRAM

SITE-DATABASE

FACILITY (NON-REACTOR)
SITE
UNIT

STATE-DATABASE

DEMOGRAPHICS
ECONOMIC INFORMATION
POWER UTILITY
PUBLIC UTILITY COMMISSION
STATE

VENDOR-DATABASE

DESIGN
TOPICAL REPORT
VENDOR

SPECIAL PURPOSE ENTITIES

COST STANDARDS
DRILL
FEE
FOIA REQUEST
OPEN TMI ITEM
PATENT
TRAINING
UNION

GENERAL PURPOSE ENTITIES

ADVISOR/EXPERT/CONSULTANT
COMMITTEE
INQUIRY
MEETING
PROJECT
WORK ITEM

OTHER CDN COMPONENTS

CDN INDEX
DOCUMENT
SCIENTIFIC CODE/DATA

EXHIBIT II-2

LOGICAL DATABASES AND CORE ENTITIES

DATABASE NAME	CORE ENTITIES	OTHER ENTITIES
ALLEGATION	ALLEGATION	INVESTIGATION (CASE)
BUILDING/PROPERTY	BUILDING (NRC)	EQUIPMENT (NRC TECHNICAL) PHYSICAL SECURITY (NRC) PROPERTY (NRC) VISITOR
COMMISSION	COMMISSION ORDER	COMMISSION PAPER
ENFORCEMENT	VIOLATION	DEVIATION ENFORCEMENT ACTION
EVENTS	EVENT	EXPOSURE RELEASE THREAT
FINANCE/ACCOUNTING	BUDGET G/L ACCOUNT	DECISION UNIT PLANNED ACCOMPLISHMENT TRAVEL
HARDWARE	SYSTEM	COMPONENT DEFICIENCY STRUCTURE TEST
INSPECTION	INSPECTION	INSPECTION MODULE INSPECTION PROGRAM OUTSTANDING ITEM (INSPECTION)
ISSUES	ISSUE (GENERAL)	BACKFIT ISSUE BULLETIN GENERIC LETTER GENERIC/US-ISSUE
LEGAL	CASE (LEGAL)	APPEAL DECISION HEARING INTERVENOR PETITION PLEADING WITNESS
LICENSE	LICENSE	LICENSE APPLICANT LICENSE APPLICATION LICENSEE LICENSEE PLAN TECH SPEC/LICENSE CONDITION

EXHIBIT II-2
(CONTINUED)
LOGICAL DATABASES AND CORE ENTITIES

DATABASE NAME	CORE ENTITIES	OTHER ENTITIES
LICENSING ACTION	LICENSING ACTION	LICENSE COMMITMENT OPEN ITEM (LICENSING)
OPERATOR	REACTOR OPERATOR	EXAMINATION (OPERATOR)
ORGANIZATION	ORGANIZATION	POSITION
PERSONNEL	EMPLOYEE (NRC)	RECRUIT/APPLICANT PERSONNEL ACTION GRIEVANCE
PROCUREMENT	PROVISION AGREEMENT	CONTRACTOR/PROVIDER (NRC) PROVISION REQUEST
RADIOACTIVE MATERIALS	PACKAGE RADIOACTIVE MATERIAL (ACCOUNTABILITY)	FUEL ASSEMBLY SHIPMENT
REGULATORY	GUIDE/STANDARD (NRC)	INTERNATIONAL AGREEMENT REGULATION STATUTE
RESEARCH	RESEARCH PROGRAM	INTERAGENCY AGREEMENT-TECHNICA
SITE	FACILITY (NON-REACTOR) UNIT	SITE
STATE	STATE	DEMOGRAPHICS ECONOMIC INFORMATION PUBLIC UTILITY PUBLIC UTILITY COMMISSION
VENDOR	VENDOR	DESIGN TOPICAL REPORT

The data entities are also linked between databases through these core entities. Links between databases were established when it was determined that data was required simultaneously about entities in separate databases. However, if it was determined that an entity was merely "referenced" (e.g., identifying number or name) a formal link was not established. Such a reference would be embedded in the database requiring the reference.

A detailed description of the modeling process and the results are provided in the Data Model, dated June 1985.

B. EVALUATION CRITERIA AND METHODOLOGY

Six development priority criteria were identified to assess each of the databases. These criteria are:

- Man-days required to:
    - Develop and implement the databases and update applications,
    - Convert existing data, and
    - Develop user applications;
- Productivity gains estimated to be derived from implementing each database;
- Number of application subject areas supported by each database;
- Sequence of databases to maximize the development of health and safety application subject areas;
- Organizational usage of each database; and
- Record volume of each database.

Regulatory reporting requirements for each of the entities in the databases was considered as a criterion. However, since data about most entities needs to reported, regulatory reporting requirements had little impact on priority evaluation. Therefore, regulatory reporting requirements was not used as a criterion.

The objective of the analysis was to determine through quantitative methods the overall merit of developing one database before another. Each of the criteria were determined to be of equal weight. No individual criteria was identified as being of greater importance than another. For example, it is difficult to determine whether a database requiring a relatively low number of man-days to be developed is of greater importance than a database which has relatively high organizational usage. Similarly, a database which is estimated to provide high productivity gains to one user organization may not be of wide interest as indicated by the number of application subject areas it supports. Consequently, the databases must be evaluated on all of the criteria.

Each database was assigned a rank on each of the six criteria. Some databases received the same rank on some of the criteria since the databases were evaluated identically on that criterion. The ranks were then totaled to determine a relative priority for development. Qualitative factors which could impact this relative priority are discussed in Section II-D.

General and special purpose entities were evaluated as part of the analysis. However, since these entities do not form a logical database, they were excluded from the ranking of the databases. The development priority of these entities is addressed in our development strategy recommendations.

Each of these criteria and the results of the evaluation of each of the databases is discussed on the following pages.

1. MAN-DAYS

One of the development criteria is the number of man-days required to fully implement a database including data conversion, development of update applications and key user applications. Total man-days includes both contractor and NRC users and RM/D staff. Generally, a database which can be operational in a short period of time is preferred. Exhibit II-3 summarizes the man-days for each of the databases and shows the ranks of the databases in ascending order of man-days. The supporting analysis is described in detail on the following pages. Costing assumptions are applied to the man-days in Section III.

a. Scope

The man-day estimates are for the design, development, and implementation of:

- Logical databases;
- Associated update applications (e.g., basic add, change and delete capabilities);
- Data conversion; and
- Initial user applications (i.e., database query, report generation and analysis).

b. General Assumptions

(1) Software/Hardware

All of our estimates assume that the following will be available and in place at the start of the development:

- Fourth generation languages,
- Prototyping tools,
- Database Management System (DBMS),
- Microcomputers linked to mainframes,
- Information Planner software, and
- Data Designer software.

(2) Contractor Expertise

We based all of our estimates on the assumption that all database and database update application development will be performed by a contractor(s). Our estimates assume that the contractor is experienced in:

- Data modeling;
- Using DBMS software; and
- Prototyping tools.

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EXHIBIT II-3

PRIORITY RANKING BASED ON PROJECT MAN-DAYS

Logical Database	Total Contractor	Total NRC	Total Project	Rank
COMMISSION	317	284	600	1
OPERATOR	327	292	619	2
RESEARCH	375	335	710	3
ALLEGATION	379	338	717	4
ENFORCEMENT	515	461	975	5
LICENSING ACTION	521	465	986	6
VENDOR	633	561	1,194	7
REGULATORY	647	579	1,226	8
ORGANIZATION	787	686	1,474	9
ISSUES	786	705	1,491	10
STATE	826	738	1,564	11
INSPECTION	869	771	1,640	12
EVENTS	879	779	1,658	13
BUILDING/PROPERTY	912	811	1,723	14
SITE	997	876	1,872	15
LEGAL	1,207	1,082	2,288	16
RADIOACTIVE MATERIALS	1,212	1,080	2,292	17
HARDWARE	1,227	1,082	2,309	18
PROCUREMENT	1,554	1,368	2,921	19
PERSONNEL	2,051	1,830	3,881	20
FINANCE/ACCOUNTING	2,493	2,226	4,718	21
LICENSE	3,021	2,684	5,706	22
SPECIAL PURPOSE ENT.	1,213	1,086	2,299	*
GENERAL PURPOSE ENT.	1,197	1,059	2,256	*
Total	24,944	22,177	47,121	N/A

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*Note: Not ranked. Entities do not form a logical database.

(3) NRC Level of Effort

(a) Users

We estimate that the effort required by NRC user staff will be equal to the effort of contractor analysts. User responsibilities will include the following tasks:

- Provide knowledge of detailed user requirements and objectives to analysts;
- Validate analyst's conceptual designs of the logical databases and applications;
- Identify sources of information contained in existing data files to be converted and loaded into the new databases;
- Validate converted data within the new databases once loaded;
- Assist during system testing by providing test data and verifying test results;
- Participate in organized training sessions initially as trainees and later as trainers;
- Develop and implement user applications;
- Continue to operate existing systems until they are phased out;
- Participate in scheduled reviews of work performed; and
- Recommend changes or enhancements as necessary.

(b) RM/D Staff

We estimate that the effort required by NRC RM/D staff will be equal to twice the effort of the contractor management. Half of this effort will be for direct labor on the project and the other half will be for indirect labor (e.g., data administration, systems programming) and management time.

c. Database Development

The following discussion describes the database development process and presents the estimated man-days required to develop each of the databases.

(1) Description

The design and development of a database involves the following steps:

- Specification of Database Requirements;
- Logical Design; and
- Physical Development.

Specification of database requirements lays the detailed foundation upon which the database will be developed. This step includes systems analysis, user requirements and conceptual design. The primary emphasis will be the development of a logical database with a complete list of entities and their attributes.

The first step in the logical design process involves updating "Information Planner" and "Data Designer" to include all attributes. During this step, the attributes are normalized and keys are identified. At this point NRC users must agree that the new database is ready for physical design. Physical design involves:

- Systems Technical Specifications;
- Technical Support Development;
- Database Specifications;
- Database Building;
- Implementation Planning; and
- Conversion Planning.

While dependent on the specific DBMS to be selected by NRC, these tasks include:

- Developing technical database performance considerations;

- Specifying the mechanisms to be used in database and application development;

- Determining physical storage and access paths;

- Loading the data dictionary; and

- Planning for both database implementation and conversion from existing systems.

(2) Estimating Standards

Exhibit II-4 shows our estimate of the man-days to develop each of the databases. The following summarizes the estimating standards used based on our experience. These standards are general since a detailed requirements analysis was not in the scope of the Data Requirements Task. This discussion will assist the reader in understanding the level of detail contained in the man-day estimates.

- Attributes - (Column E) On average, there will be 100 attributes (data elements) per entity. For the 101 entities described in the Data Dictionary, the total number of attributes will be approximately 10,100 (101 x 100). Database Design, Inc. reports that this is consistent with the number of attributes found in an electric utility in Wisconsin and appears to be reasonable. We estimate that it will take an average of ten days per entity to identify its attributes.

- Relationships - (Columns B and C) "Internal relationship" indicates the number of times the entities within a database are linked. "External relationship" indicates the number of times the database is linked to other databases. Relationships are used to identify keys. We estimate that it will take an average of 1/2 day per relationship to identify keys. (Column F)

- Complexity Factor - (Column D) Each database was examined to determine the degree of complexity. A complexity factor indicates how complex a database is based on the number of types of each of the entities in the database (e.g., there are several types of licenses), number of attributes, need for multiple data maintenance responsibility, and volume of transactions. Based on our judgement of the relative complexity of the databases, databases of average complexity were assigned a complexity factor of 100%. Databases which appeared to be very complex (Finance/Accounting, License, Procurement, Radioactive Material and Personnel) were assigned a complexity factor of 150 to 300%.

- Level of Effort - (Columns E-H) The effort for the logical design of the database will be equal to 1.5 times the effort spent on identification of database requirements. The effort for physical development of a database will be equal to twice the logical design effort.

- Contractor Labor - (Columms J-M) Based on our experience we estimate management time to be 15%

of the total Analyst and Programmer time. The allocation of man-days to Analysts and Programmers in shown in the key to the Exhibit.

* *
THESE ESTIMATES ARE ONLY AN APPROXIMATION.
VARIATIONS COULD OCCUR FROM PROCUREMENT
DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.
* *

EXHIBIT II-4

DATABASE DEVELOPMENT
MAN-DAYS (CONTRACTOR)

Logical Database	Number of Entities (A)	Number of External Relat'ships (B)	Number of Internal Relat'ships (C)	Database Complexity Factor (D)	Database Requirements (Man-Days): Identify Attributes (E)	Database Requirements (Man-Days): Identify Keys (F)	Database Development (Man-Days): Logical Design (G)	Database Development (Man-Days): Physical Development (H)	Total (I)	Contractor Labor (Man-Days): Management (J)	Contractor Labor (Man-Days): Analyst (K)	Contractor Labor (Man-Days): Programmer (L)	Contractor Labor (Man-Days): Total Contractor Labor (M)
ALLEGATION	2	12	1	100%	20	7	40	80	146	22	106	40	168
BUILDING/PROPERTY	5	4	7	100%	50	6	83	167	305	46	222	83	351
COMMISSION	2	6	1	100%	20	4	35	71	129	19	94	35	149
ENFORCEMENT	3	14	2	100%	30	8	57	114	209	31	152	57	240
EVENTS	4	14	4	100%	40	9	74	147	270	40	196	74	310
FINANCE/ACCOUNTING	5	6	4	300%	150	15	248	495	908	136	660	248	1,044
HARDWARE	5	11	8	100%	50	10	89	179	327	49	238	89	376
INSPECTION	4	16	3	100%	40	10	74	149	272	41	198	74	313
ISSUES	5	9	9	100%	50	9	89	177	325	49	236	89	373
LEGAL	8	7	8	100%	80	8	131	263	481	72	350	131	553
LICENSE	6	18	6	250%	150	30	270	540	990	149	720	270	1,139
LICENSING ACTION	3	8	2	100%	30	5	53	105	193	29	140	53	221
OPERATOR	2	5	1	100%	20	3	35	69	127	19	92	35	145
ORGANIZATION	2	4	1	100%	20	3	34	68	124	19	90	34	142
PERSONNEL	4	5	4	300%	120	14	200	401	734	110	534	200	844
PROCUREMENT	3	7	2	200%	60	9	104	207	380	57	276	104	436
RADIOACTIVE MATERIALS	4	20	5	150%	60	19	118	236	433	65	315	118	498
REGULATORY	4	10	4	100%	40	7	71	141	259	39	188	71	297
RESEARCH	2	11	1	100%	20	6	39	78	143	21	104	39	164
SITE	3	23	2	100%	30	13	64	128	234	35	170	64	269
STATE	5	4	6	100%	50	5	83	165	303	45	220	83	348
VENDOR	3	5	2	100%	30	4	50	101	184	28	134	50	212
SPECIAL PURPOSE ENT.	8	9	0	100%	80	5	127	254	465	70	338	127	534
GENERAL PURPOSE ENT.	6	2	0	100%	60	1	92	183	336	50	244	92	386
Total	98	230	83	N/A	1,300	204	2,256	4,513	8,273	1,241	6,017	2,256	9,514
Mean	4	10	3	N/A	54	9	94	188	345	52	251	94	396

Key to Exhibit:

Identify Attributes	(E) = A * 10 * D	Management	(J) = I * 15%
Identify Keys	(F) = ((C + B)/2) * D	Analyst	(K) = E + F + G + H / 2
Logical Design	(G) = (E + F) * 1.5	Programmer	(L) = H / 2
Physical Development	(H) = G * 2	Total Contractor Labor	(M) = J + K + L
Total	(I) = E + F + G + H		

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d. Update Application Development

(1) Description

The process for designing and developing the update applications (the applications used to add, change, or delete information in the database) is similar to the design and development of a database. The time required to design and develop these applications, however, will be considerably less.

(2) Estimating Standards

Exhibit II-5 shows our estimate of the man-days to develop update applications for each of the databases. The same basic methodology with regard to relationships and complexity factors used in estimating database development was used in estimating update application man-days.

The effort estimated for performing system requirements (Column N) is 5 days per entity based on the assumption that the analyst can identify and code edits for an average of 20 attributes per day. The effort for the logical design of the update application (Column O) will be equal to 1/2 of the effort spent on requirements or 2.5 days per entity. The effort for the physical development (Column P) will be equal to twice the effort spent on logical design or approximately 5 days per entity.

The standards used for computing Contractor Labor (Columns R-U) are the same as those used for database development. The computations are shown in the key to the exhibit.

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VARIATIONS COULD OCCUR FROM PROCUREMENT
DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT II-5

DATABASE UPDATE APPLICATIONS
DEVELOPMENT MAN-DAYS (CONTRACTOR)

Logical Database	Number of Entities (A)	Number of External Relat'ships (B)	Number of Internal Relat'ships (C)	Database Complexity Factor (D)	System Requirements (Man-Days) (N)	Applications Development (Man-Days) Logical Design (O)	Physical Development (P)	Total (Q)	Contractor Labor (Man-Days) Management (R)	Analyst (S)	Programmer (T)	Total Contractor Labor (U)
ALLEGATION	2	12	1	100%	10	5	10	25	4	15	10	29
BUILDING/PROPERTY	5	4	7	100%	25	13	25	63	9	38	25	72
COMMISSION	2	6	1	100%	10	5	10	25	4	15	10	29
ENFORCEMENT	3	14	2	100%	15	8	15	38	6	23	15	43
EVENTS	4	14	4	100%	20	10	20	50	8	30	20	58
FINANCE/ACCOUNTING	5	6	4	300%	75	38	75	188	28	113	75	216
HARDWARE	5	11	8	100%	25	13	25	63	9	38	25	72
INSPECTION	4	16	3	100%	20	10	20	50	8	30	20	58
ISSUES	5	9	9	100%	25	13	25	63	9	38	25	72
LEGAL	8	7	8	100%	40	20	40	100	15	60	40	115
LICENSE	6	18	6	250%	75	38	75	188	28	113	75	216
LICENSING ACTION	3	8	2	100%	15	8	15	38	6	23	15	43
OPERATOR	2	5	1	100%	10	5	10	25	4	15	10	29
ORGANIZATION	2	4	1	100%	10	5	10	25	4	15	10	29
PERSONNEL	4	5	4	300%	60	30	60	150	23	90	60	173
PROCUREMENT	3	7	2	200%	30	15	30	75	11	45	30	86
RADIOACTIVE MATERIALS	4	20	5	150%	30	15	30	75	11	45	30	86
REGULATORY	4	10	4	100%	20	10	20	50	8	30	20	58
RESEARCH	2	11	1	100%	10	5	10	25	4	15	10	29
SITE	3	23	2	100%	15	8	15	38	6	23	15	43
STATE	5	4	6	100%	25	13	25	63	9	38	25	72
VENDOR	3	5	2	100%	15	8	15	38	6	23	15	43
SPECIAL PURPOSE ENT.	8	9	0	100%	40	20	40	100	15	60	40	115
GENERAL PURPOSE ENT.	6	2	0	100%	30	15	30	75	11	45	30	86
Total	98	230	83	N/A	650	325	650	1,625	244	975	650	1,869
Mean	4	10	3	N/A	27	14	27	68	10	41	27	78

Key to Exhibit:

Systems Requirements (N) = (A * 5) * D
Logical Design (O) = N / 2
Physical Development (P) = O * 2
Total (Q) = N + O + P
Management (R) = Q * 15%
Analyst (S) = N + O
Programmer (T) = P
Total Contractor Labor (U) = R + S + T

e. Implementation

(1) Description

Following the design and development of both the database and the update applications, the implementation process will begin. The initialization of the new database and procedures and the termination of old systems will involve the following steps:

- System testing;
- Preparing systems documentation;
- Preparing user documentation;
- Planning for user training;
- Installing user procedures and controls;
- Conducting user training.
- Parallel running and verification with existing systems;
- Phasing out of old systems (if any); and
- Conducting a post-implementation review;

Implementation excludes data conversion which is discussed in part f. on the following pages.

(2) Estimating Standards

Exhibit II-6 shows our estimate of the man-days to implement both the databases and the update applications. The same basic methodology was used in computing man-days with regard to relationships and complexity factors. The effort for database implementation (Column V) will be equal to approximately 20% of the effort required for database physical development. The effort required for implementation of each update application (Column W) will be equal to twice the update application's physical development effort.

The standards used for computing Contractor Labor (Columns Y-AA) are the same as those used for database development. The computations are shown in the key to the exhibit.

EXHIBIT II-6 IMPLEMENTATION MAN-DAYS (CONTRACTOR)

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

Logical Database	Database Implementation (Man-Days) (V)	Database Update Applications Implementation (Man-Days) (W)	Total (X)	Contractor Labor (Man-Days) Management (Y)	Analyst (Z)	Total Contractor Labor (AA)
ALLEGATION	16	20	36	5	36	41
BUILDING/PROPERTY	33	50	83	12	83	96
COMMISSION	14	20	34	5	34	39
ENFORCEMENT	23	30	53	8	53	61
EVENTS	29	40	69	10	69	80
FINANCE/ACCOUNTING	99	150	249	37	249	286
HARDWARE	36	50	86	13	86	99
INSPECTION	30	40	70	10	70	80
ISSUES	35	50	65	13	85	98
LEGAL	53	80	133	20	133	152
LICENSE	108	150	258	39	258	297
LICENSING ACTION	21	30	51	8	51	59
OPERATOR	14	20	34	5	34	39
ORGANIZATION	14	20	34	5	34	39
PERSONNEL	80	120	200	30	200	230
PROCUREMENT	41	60	101	15	101	117
RADIOACTIVE MATERIALS	47	60	107	16	107	123
REGULATORY	28	40	68	10	68	78
RESEARCH	16	20	36	5	36	41
SITE	26	30	56	8	56	64
STATE	33	50	83	12	83	95
VENDOR	20	30	50	8	50	58
SPECIAL PURPOSE ENT.	51	80	131	20	131	150
GENERAL PURPOSE ENT.	37	60	97	14	97	111
Total	903	1,300	2,203	330	2,203	2,533
Mean	38	54	92	14	92	106

Key to Exhibit:

Database Implementation (V) = H / 5 (Database Physical Development)
Database Update Appl. Implementation (W) = P * 2 (Update Appl. Physical Development)
Total (X) = V + W
Management (Y) = X * 15%
Analyst (Z) = X
Total Contractor Labor (AA) = Y + Z

f. Data Conversion

(1) Description

The data conversion estimates are based on the following assumptions:

- Adequate system documentation is available for existing systems whose data are converted and loaded to the new databases; and
- Data to be converted currently resides in an automated system.

The data conversion task excludes actual parallel running and verification with existing systems which is accomplished during implementation, discussed previously in part e.

(2) Estimating Standards

We reviewed the Federal government's standard algorithm for staff-day resource requirements for data file conversion.* However, the information required to implement the algorithm is not available (e.g., number of files to be converted, percentage of documentation available, degree of file complexity). Therefore, we developed an estimate based on our prior experience.

Exhibit II-7 shows our estimate for performing data conversion. The effort estimated to analyze existing data files and determine the source(s) of the data to be converted (Column AC) is 5 days for each of the existing systems containing that data. The effort required to identify and map the location in the logical database where the data will reside (Column AD) is equal to 25% of the time required to determine data source(s). The effort for logical design of the conversion programs (Column AE) will be 25% of the total time needed for analyzing data sources and data mapping together. Physical development of the conversion programs (Column AF) will be twice the time required to perform the logical design. These estimates assume that although all sources will be analyzed to determine contents, only 50% of the sources will actually be used in mapping and physical development.

The standards used for computing Contractor Labor (Columns AH-AJ) are the same as those used for database development. The computations are shown in the key to the exhibit.

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*"Federal Conversion Support Center Conversion Cost Model (Version 2)", Report No. OSD/FCSC-82-001, Pgs. 40-41.

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EXHIBIT II-7 DATA CONVERSION MAN-DAYS (CONTRACTOR)

							Contractor Labor (Man-Days)			
Logical Database	Number of Existing Systems (AB)	Analyze Data Sources (AC)	Identify Data Mapping (AD)	Logical Design (AE)	Physical Development (AF)	Total (AG)	Management (AH)	Analyst (AI)	Programmer (AJ)	Total Contractor Labor (AK)
ALLEGATION	4	20	5	8	15	48	7	33	15	55
BUILDING/PROPERTY	13	65	16	24	49	154	23	106	49	178
COMMISSION	1	5	1	2	4	12	2	8	4	14
ENFORCEMENT	3	15	4	6	11	36	5	24	11	41
EVENTS	19	95	24	36	71	226	34	154	71	259
FINANCE/ACCOUNTING	22	110	28	41	83	261	39	179	83	300
HARDWARE	34	170	43	64	128	404	61	276	128	464
INSPECTION	18	90	23	34	68	214	32	146	68	246
ISSUES	2	10	3	4	8	24	4	16	8	27
LEGAL	3	15	4	6	11	36	5	24	11	41
LICENSE	53	265	66	99	199	629	94	431	199	724
LICENSING ACTION	5	25	6	9	19	59	9	41	19	68
OPERATOR	2	10	3	4	8	24	4	16	8	27
ORGANIZATION	36	180	45	68	135	428	64	293	135	492
PERSONNEL	21	105	26	39	79	249	37	171	79	287
PROCUREMENT	48	240	60	90	180	570	86	390	180	656
RADIOACTIVE MATERIALS	18	90	23	34	68	214	32	146	68	246
REGULATORY	3	15	4	6	11	36	5	24	11	41
RESEARCH	4	20	5	8	15	48	7	33	15	55
SITE	36	180	45	68	135	428	64	293	135	492
STATE	7	35	9	13	26	83	12	57	26	96
VENDOR	14	70	18	26	53	166	25	114	53	191
SPECIAL PURPOSE ENT.	5	25	6	9	19	59	9	41	19	68
GENERAL PURPOSE ENT.	26	130	33	49	98	309	46	211	98	355
Total	397	1,985	496	744	1,489	4,714	707	3,226	1,489	5,422
Mean	17	83	21	31	62	196	29	134	62	226

Key to Exhibit:

Number of Existing Systems (AB) = Entity Redundancy Factor + 1
Analyze Data Sources (AC) = AB * 5
Identify Data Mapping (AD) = AC / 4
Logical Design (AE) = (AC/2 + AD) / 2
Physical Development (AF) = AE * 2
Total (AG) = AC + AD + AE + AF
Management (AH) = AG * 15%
Analyst (AI) = (AC + AD + AE)
Programmer (AJ) = AF
Total Contractor Labor (AK) = AH + AI + AJ

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g. User Application Development

(1) Description

During the database development task, the design and development of the user applications will begin. User applications will consist of queries, reports, decision support tools, and other types of programs. The process for designing and developing the user applications is similar to the design and development of the database update applications.

(2) Estimating Standards

Exhibit II-8 shows our estimate of the man-days to develop user applications for each of the databases. For purposes of this estimate, we assumed that, on average, there will be five user applications for each database. We estimate that development time for a user application will be roughly equal to the time required to develop an update application, including fourth generation language user training.

The standards used for computing Contractor Labor (Columns AM-AO) are the same as those used for database development. The computations are shown in the key to the exhibit.

EXHIBIT II-8 USER APPLICATIONS DEVELOPMENT MAN-DAYS (CONTRACTOR)

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

Logical Database	Database Update Appl. Dvlp.-Analyst (S)	User Applications Development (AL)	Contractor Labor (Man-Days) Management (AM)	Analyst (AN)	Total Contractor Labor (AO)
ALLEGATION	15	75	11	75	86
BUILDING/PROPERTY	38	188	28	188	216
COMMISSION	15	75	11	75	86
ENFORCEMENT	23	113	17	113	129
EVENTS	30	150	23	150	173
FINANCE/ACCOUNTING	113	563	84	563	647
HARDWARE	38	188	28	188	216
INSPECTION	30	150	23	150	173
ISSUES	38	188	28	188	216
LEGAL	60	300	45	300	345
LICENSE	113	563	84	563	647
LICENSING ACTION	23	113	17	113	129
OPERATOR	15	75	11	75	86
ORGANIZATION	15	75	11	75	86
PERSONNEL	90	450	68	450	518
PROCUREMENT	45	225	34	225	259
RADIOACTIVE MATERIALS	45	225	34	225	259
REGULATORY	30	150	23	150	173
RESEARCH	15	75	11	75	86
SITE	23	113	17	113	129
STATE	38	188	28	188	216
VENDOR	23	113	17	113	129
SPECIAL PURPOSE ENT.	60	300	45	300	345
GENERAL PURPOSE ENT.	45	225	34	225	259
Total	975	4,875	731	4,875	5,606
Mean	41	203	30	203	234

Key to Exhibit:
User Appl. Development (AL) = S * 5
Management (AM) = AL * 15%
Analyst (AN) = AL
Total Contractor Labor (AO) = AM + AN

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Exhibit II-9 summarizes all man-days (contractor and NRC) for all five tasks for each database previously presented separately in Exhibits II-4 through II-8. The first page of the exhibit provides a key to the computations.

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EXHIBIT II-9 TOTAL DEVELOPMENT AND IMPLEMENTATION MAN-DAYS BY PROJECT

Key to Exhibit:	Contract Management	(A) = Management (Exhibits II-4 -- II-8)
	Contract Analyst	(B) = Analyst (Exhibits II-4 -- II-8)
	Contract Programmer	(C) = Programmer (Exhibits II-4, II-5 & II-7)
	Total Contractor	(D) = A + B + C
	NRC RM/D Staff	(E) = A * 2
	NRC User (Task 1,2,3,4)	(F) = B
	NRC User (Task 5)	(F) = C (Task 2) * 5
	Total NRC	(G) = E + F
	Total Project	(H) = D + G

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RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT II-9 (cont'd) TOTAL DEVELOPMENT AND IMPLEMENTATION MAN-DAYS BY PROJECT

Manpower Requirements (In Man-Days)

Task Description	Contract Management (A)	Contract Analyst (B)	Contract Programmer (C)	Total Contractor (D)	NRC RM/D Staff (E)	NRC User (F)	Total NRC (G)	Total Project (H)
Project - ALLEGATION								
Task 1 Database Development	22	106	40	168	44	106	150	317
Task 2 Database Update Appl. Development	4	15	10	29	8	15	23	51
Task 3 Implementation	5	36	0	41	11	36	47	88
Task 4 Data Conversion	7	33	15	55	14	33	47	101
Task 5 User Applications Development	11	75	0	86	23	50	73	159
Project Totals	49	264	65	379	99	239	338	717
Project - BUILDING/PROPERTY								
Task 1 Database Development	46	222	83	351	92	222	314	665
Task 2 Database Update Appl. Development	9	38	25	72	19	38	56	128
Task 3 Implementation	12	83	0	96	25	83	108	204
Task 4 Data Conversion	23	106	49	178	46	106	152	329
Task 5 User Applications Development	28	188	0	216	56	125	181	397
Project Totals	119	636	157	912	238	573	811	1,723
Project - COMMISSION								
Task 1 Database Development	19	94	35	149	39	94	133	281
Task 2 Database Update Appl. Development	4	15	10	29	8	15	23	51
Task 3 Implementation	5	34	0	39	10	34	44	84
Task 4 Data Conversion	2	8	4	14	4	8	12	25
Task 5 User Applications Development	11	75	0	86	23	50	73	159
Project Totals	41	226	49	317	83	201	284	600
Project - ENFORCEMENT								
Task 1 Database Development	31	152	57	240	63	152	215	455
Task 2 Database Update Appl. Development	6	23	15	43	11	23	34	77
Task 3 Implementation	8	53	0	61	16	53	69	129
Task 4 Data Conversion	5	24	11	41	11	24	35	76
Task 5 User Applications Development	17	113	0	129	34	75	109	238
Project Totals	67	364	83	515	134	327	461	975
Project - EVENTS								
Task 1 Database Development	40	196	74	310	81	196	277	587
Task 2 Database Update Appl. Development	8	30	20	58	15	30	45	103
Task 3 Implementation	10	69	0	80	21	69	90	170
Task 4 Data Conversion	34	154	71	259	68	154	222	482
Task 5 User Applications Development	23	150	0	173	45	100	145	318
Project Totals	115	600	165	879	229	550	779	1,658

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:RESOLUTION OR OTHER FACTORS. ESTIMATES
:COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT II-9 TOTAL DEVELOPMENT AND IMPLEMENTATION MAN-DAYS BY PROJECT
(cont'd)

Task Description	Manpower Requirements (In Man-Days) Contract Management (A)	Contract Analyst (B)	Contract Programmer (C)	Total Contractor (D)	NRC RM/D Staff (E)	NRC User (F)	Total NRC (G)	Total Project (H)
Project - FINANCE/ACCOUNTING								
Task 1 Database Development	136	660	248	1,044	272	660	932	1,976
Task 2 Database Update Appl. Development	28	113	75	216	56	113	169	384
Task 3 Implementation	37	249	0	286	75	249	324	610
Task 4 Data Conversion	39	179	83	300	78	179	257	558
Task 5 User Applications Development	84	563	0	647	169	375	544	1,191
Project Totals	325	1,763	405	2,493	650	1,575	2,226	4,718
Project - HARDWARE								
Task 1 Database Development	49	238	89	376	98	238	336	713
Task 2 Database Update Appl. Development	9	38	25	72	19	38	56	128
Task 3 Implementation	13	86	0	99	26	86	111	210
Task 4 Data Conversion	61	276	128	464	121	276	397	862
Task 5 User Applications Development	28	188	0	216	56	125	181	397
Project Totals	160	825	242	1,227	320	762	1,082	2,309
Project - INSPECTION								
Task 1 Database Development	41	198	74	313	82	198	280	593
Task 2 Database Update Appl. Development	8	30	20	58	15	30	45	103
Task 3 Implementation	10	70	0	80	21	70	91	171
Task 4 Data Conversion	32	146	68	246	64	146	210	456
Task 5 User Applications Development	23	150	0	173	45	100	145	318
Project Totals	113	594	162	869	227	544	771	1,640
Project - ISSUES								
Task 1 Database Development	49	236	89	373	97	236	333	707
Task 2 Database Update Appl. Development	9	38	25	72	19	38	56	128
Task 3 Implementation	13	85	0	98	26	85	111	209
Task 4 Data Conversion	4	16	8	27	7	16	23	51
Task 5 User Applications Development	28	188	0	216	56	125	181	397
Project Totals	103	563	121	786	205	500	705	1,491
Project - LEGAL								
Task 1 Database Development	72	350	131	553	144	350	494	1,048
Task 2 Database Update Appl. Development	15	60	40	115	30	60	90	205
Task 3 Implementation	20	133	0	152	40	133	172	325
Task 4 Data Conversion	5	24	11	41	11	24	35	76
Task 5 User Applications Development	45	300	0	345	90	200	290	635
Project Totals	157	867	183	1,207	315	767	1,082	2,288

EXHIBIT II-9 TOTAL DEVELOPMENT AND IMPLEMENTATION MAN-DAYS BY PROJECT
(cont'd)

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	Manpower Requirements (In Man-Days)						
Task Description	Contract Management (A)	Contract Analyst (B)	Contract Programmer (C)	Total Contractor (D)	NRC RM/D Staff (E)	NRC User (F)	Total NRC (G)	Total Project (H)
Project - LICENSE								
Task 1 Database Development	149	720	270	1,139	297	720	1,017	2,156
Task 2 Database Update Appl. Development	28	113	75	216	56	113	169	384
Task 3 Implementation	39	258	0	297	77	258	335	632
Task 4 Data Conversion	94	431	199	724	189	431	619	1,343
Task 5 User Applications Development	84	563	0	647	169	375	544	1,191
Project Totals	394	2,084	544	3,021	788	1,896	2,684	5,706
Project - LICENSING ACTION								
Task 1 Database Development	29	140	53	221	58	140	198	419
Task 2 Database Update Appl. Development	6	23	15	43	11	23	34	77
Task 3 Implementation	8	51	0	59	15	51	66	125
Task 4 Data Conversion	9	41	19	68	18	41	58	127
Task 5 User Applications Development	17	113	0	129	34	75	109	238
Project Totals	68	367	86	521	136	329	465	986
Project - OPERATOR								
Task 1 Database Development	19	92	35	145	38	92	130	275
Task 2 Database Update Appl. Development	4	15	10	29	8	15	23	51
Task 3 Implementation	5	34	0	39	10	34	44	83
Task 4 Data Conversion	4	16	8	27	7	16	23	51
Task 5 User Applications Development	11	75	0	86	23	50	73	159
Project Totals	43	232	52	327	85	207	292	619
Project - ORGANIZATION								
Task 1 Database Development	19	90	34	142	37	90	127	269
Task 2 Database Update Appl. Development	4	15	10	29	8	15	23	51
Task 3 Implementation	5	34	0	39	10	34	44	82
Task 4 Data Conversion	64	293	135	492	128	293	421	912
Task 5 User Applications Development	11	75	0	86	23	50	73	159
Project Totals	103	506	179	787	205	481	686	1,474
Project - PERSONNEL								
Task 1 Database Development	110	534	200	844	220	534	754	1,599
Task 2 Database Update Appl. Development	23	90	60	173	45	90	135	308
Task 3 Implementation	30	200	0	230	60	200	260	490
Task 4 Data Conversion	37	171	79	287	75	171	245	532
Task 5 User Applications Development	68	450	0	518	135	300	435	953
Project Totals	268	1,445	339	2,051	535	1,295	1,830	3,881

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DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
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EXHIBIT II-9 (cont'd) TOTAL DEVELOPMENT AND IMPLEMENTATION MAN-DAYS BY PROJECT

Task Description	Contract Management (A)	Contract Analyst (B)	Contract Programmer (C)	Total Contractor (D)	NRC RM/D Staff (E)	NRC User (F)	Total NRC (G)	Total Project (H)
	Manpower Requirements (In Man-Days)							
Project - PROCUREMENT								
Task 1 Database Development	57	276	104	436	114	276	390	826
Task 2 Database Update Appl. Development	11	45	30	86	23	45	68	154
Task 3 Implementation	15	101	0	117	30	101	132	248
Task 4 Data Conversion	86	390	180	656	171	390	561	1,217
Task 5 User Applications Development	34	225	0	259	68	150	218	476
Project Totals	203	1,037	314	1,554	405	962	1,368	2,921
Project - RADIOACTIVE MATERIAL								
Task 1 Database Development	65	315	118	498	130	315	445	943
Task 2 Database Update Appl. Development	11	45	30	86	23	45	68	154
Task 3 Implementation	16	107	0	123	32	107	139	263
Task 4 Data Conversion	32	146	68	246	64	146	210	456
Task 5 User Applications Development	34	225	0	259	68	150	218	476
Project Totals	158	839	216	1,212	316	764	1,080	2,292
Project - REGULATORY								
Task 1 Database Development	39	188	71	297	78	188	266	563
Task 2 Database Update Appl. Development	8	30	20	58	15	30	45	103
Task 3 Implementation	10	68	0	78	20	68	89	167
Task 4 Data Conversion	5	24	11	41	11	24	35	76
Task 5 User Applications Development	23	150	0	173	45	100	145	318
Project Totals	84	461	102	647	169	411	579	1,226
Project - RESEARCH								
Task 1 Database Development	21	104	39	164	43	104	147	311
Task 2 Database Update Appl. Development	4	15	10	29	8	15	23	51
Task 3 Implementation	5	36	0	41	11	36	46	87
Task 4 Data Conversion	7	33	15	55	14	33	47	101
Task 5 User Applications Development	11	75	0	86	23	50	73	159
Project Totals	49	262	64	375	98	237	335	710
Project - SITE								
Task 1 Database Development	35	170	64	269	70	170	240	509
Task 2 Database Update Appl. Development	6	23	15	43	11	23	34	77
Task 3 Implementation	8	56	0	64	17	56	72	136
Task 4 Data Conversion	64	293	135	492	128	293	421	912
Task 5 User Applications Development	17	113	0	129	34	75	109	238
Project Totals	130	653	214	997	260	616	876	1,872

THESE ESTIMATES ARE ONLY AN APPROXIMATION.
VARIATIONS COULD OCCUR FROM PROCUREMENT
DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT II-9 (cont'd) TOTAL DEVELOPMENT AND IMPLEMENTATION MAN-DAYS BY PROJECT

Manpower Requirements (In Man-Days)

Task Description	Contract Management (A)	Contract Analyst (B)	Contract Programmer (C)	Total Contractor (D)	NRC RM/D Staff (E)	NRC User (F)	Total NRC (G)	Total Project (H)
Project - STATE								
Task 1 Database Development	45	220	83	348	91	220	311	659
Task 2 Database Update Appl. Development	9	38	25	72	19	38	56	128
Task 3 Implementation	12	83	0	95	25	83	108	203
Task 4 Data Conversion	12	57	26	96	25	57	82	177
Task 5 User Applications Development	28	188	0	216	56	125	181	397
Project Totals	108	585	134	826	216	522	738	1,564
Project - VENDOR								
Task 1 Database Development	28	134	50	212	55	134	189	401
Task 2 Database Update Appl. Development	6	23	15	43	11	23	34	77
Task 3 Implementation	8	50	0	58	15	50	65	123
Task 4 Data Conversion	25	114	53	191	50	114	164	355
Task 5 User Applications Development	17	113	0	129	34	75	109	238
Project Totals	83	433	118	633	165	395	561	1,194
Project - SPECIAL PURPOSE ENTITIES								
Task 1 Database Development	70	338	127	534	139	338	477	1,012
Task 2 Database Update Appl. Development	15	60	40	115	30	60	90	205
Task 3 Implementation	20	131	0	150	39	131	170	320
Task 4 Data Conversion	9	41	19	68	18	41	58	127
Task 5 User Applications Development	45	300	0	345	90	200	290	635
Project Totals	158	869	186	1,213	316	769	1,086	2,299
Project - GENERAL PURPOSE ENTITIES								
Task 1 Database Development	50	244	92	386	101	244	345	730
Task 2 Database Update Appl. Development	11	45	30	86	23	45	68	154
Task 3 Implementation	14	97	0	111	29	97	126	237
Task 4 Data Conversion	46	211	98	355	93	211	304	659
Task 5 User Applications Development	34	225	0	259	68	150	218	476
Project Totals	156	822	219	1,197	312	747	1,059	2,256
Total All Projects	3,254	17,295	4,395	24,944	6,507	15,670	22,177	47,121

2. PRODUCTIVITY GAINS

An estimate of the anticipated gains in employee productivity from implementing a database is another criterion for development priority. Generally, databases with high anticipated gains relative to other databases should be developed first.

The major benefits which the NRC will derive from converting to a database environment will be significant improvements in the quality and integrity of the data, in addition to improved access to the data. Because of this improved integrity and access, the NRC over time will experience gains in employee productivity.

However, in a non-production environment, productivity gains are difficult to measure with any reliability. There are indicators, however, which can be used to compare how each of the databases might improve productivity.

Two measures were identified in the Enterprise Model, dated May 1985:

- Data redundancy, and
- Unmet needs.

These measures indicated the overall inefficiency of the current systems operating environment during the first quarter of 1985.

Reduction in data redundancy

Data redundancy is defined as a data entity that appears in more than one database. From a productivity perspective, elimination (or minimization) of data redundancy would reduce data collection, input, processing, and system maintenance time and typically, is a major benefit in converting to a shared database environment.

Satisfaction of unmet needs

An unmet need is defined as a data entity that is required by an organization but is currently not received in an automated format. Generally, an unmet need indicates that an organization must manually consolidate information from a variety of sources (e.g., manual files), and typically represents a time-consuming, expensive method of obtaining information. Satisfaction of these needs will generally reduce costly manual consolidation efforts.

The sum of these two measures for a database indicates the degree to which the database will improve the overall productivity of the users of the data. It is anticipated that users will be able to concentrate their efforts on analyzing data rather than sorting inconsistent data or gathering required data.

Exhibit II-10 shows the ranking of the databases based on the sum of the redundancy factor and the unmet needs factor. The factor for each database is the sum of the factors for each of the individual entities in the database shown in Exhibit II-11.

It should be noted, however, that there will be a lag in realizing productivity gains. Users will need to learn to use the new databases while phasing out use of the old systems.

EXHIBIT II-10

PRIORITY RANKING BASED ON PRODUCTIVITY GAINS

Logical Database	Entity Redundancy Factor	Un-Met Needs Factor	Total	Rank+
LICENSE	52	47	99	1
ISSUES	5	84	89	2
PROCUREMENT	47	38	85	3
LEGAL	2	70	72	4
HARDWARE	33	36	69	5
FINANCE/ACCOUNTING	21	45	66	6
REGULATORY	2	54	56	7
ENFORCEMENT	2	51	53	8
BUILDING/PROPERTY	12	39	51	9
EVENTS	18	31	49	10
ORGANIZATION	35	14	49	10
SITE	35	13	48	12
INSPECTION	18	29	47	13
PERSONNEL	20	23	43	14
LICENSING ACTION	4	37	41	15
VENDOR	13	20	33	16
STATE	6	22	28	17
ALLEGATION	3	23	26	18
RADIOACTIVE MATERIALS	17	9	26	18
COMMISSION	0	24	24	20
RESEARCH	3	18	21	21
OPERATOR	1	4	5	22
SPECIAL PURPOSE ENT.	4	67	71	*
GENERAL PURPOSE ENT.	25	269	294	*
Total	378	1,067	1,445	N/A

+Note: Duplicate rankings assigned to logical databases with identical values in the ranking criterion.

*Note: Not ranked. Entities do not form a logical database.

Source: Enterprise Model

EXHIBIT II-11

LOGICAL DATABASE
PRODUCTIVITY GAINS DETAIL

Logical Database	Entity Redundancy Factor	Un-Met Needs Factor
ALLEGATION		
ALLEGATION	1	13
INVESTIGATION (CASE)	2	10
Total	3	23
BUILDING/PROPERTY		
BUILDING (NRC)	3	8
EQUIPMENT (NRC TECHNICAL)	1	14
PHYSICAL SECURITY (NRC)	0	8
PROPERTY (NRC)	7	6
VISITOR	1	3
Total	12	39
COMMISSION		
COMMISSION ORDER	0	9
COMMISSION PAPER	0	15
Total	0	24
ENFORCEMENT		
DEVIATION	0	24
ENFORCEMENT ACTION	0	16
VIOLATION	2	11
Total	2	51
EVENTS		
EVENT	10	13
EXPOSURE	3	8
RELEASE	5	5
THREAT	0	5
Total	18	31

EXHIBIT II-11

LOGICAL DATABASE
PRODUCTIVITY GAINS DETAIL

Logical Database	Entity Redundancy Factor	Un-Met Needs Factor
FINANCE/ACCOUNTING		
BUDGET	12	11
DECISION UNIT	2	12
G/L ACCOUNT	3	0
PLANNED ACCOMPLISHMENT	2	5
TRAVEL	2	17
Total	21	45
HARDWARE		
COMPONENT	10	6
DEFICIENCY	0	16
STRUCTURE	2	7
SYSTEM	18	1
TEST	3	6
Total	33	36
INSPECTION		
INSPECTION	9	0
INSPECTION MODULE	4	6
INSPECTION PROGRAM	0	15
OUTSTANDING ITEM (INSPECTION)	5	8
Total	18	29
ISSUES		
BACKFIT ISSUE	0	11
BULLETIN	0	26
GENERIC LETTER	0	22
GENERIC/US ISSUE	3	12
ISSUE (GENERAL)	2	13
Total	5	84

EXHIBIT II-11

LOGICAL DATABASE
PRODUCTIVITY GAINS DETAIL

Logical Database	Entity Redundancy Factor	Un-Met Needs Factor
LEGAL		
APPEAL	0	10
CASE (LEGAL)	0	15
DECISION	0	11
HEARING	2	2
INTERVENOR	0	10
PETITION	0	10
PLEADING	0	7
WITNESS	0	5
Total	2	70
LICENSE		
LICENSE	23	2
LICENSE APPLICANT	2	4
LICENSE APPLICATION	3	4
LICENSEE	21	4
LICENSEE PLAN	0	14
TECH SPEC/LICENSE CONDITION	3	19
Total	52	47
LICENSING ACTION		
LICENSEE COMMITMENT	0	22
LICENSING ACTION	4	5
OPEN ITEM (LICENSING)	0	10
Total	4	37
OPERATOR		
EXAMINATION (OPERATOR)	1	1
REACTOR OPERATOR	0	3
Total	1	4

EXHIBIT II-11

LOGICAL DATABASE
PRODUCTIVITY GAINS DETAIL

Logical Database	Entity Redundancy Factor	Un-Met Needs Factor
ORGANIZATION		
ORGANIZATION	35	1
POSITION	0	13
Total	35	14
PERSONNEL		
EMPLOYEE (NRC)	20	2
GRIEVANCE	0	9
PERSONNEL ACTION	0	4
RECRUIT/APPLICANT	0	8
Total	20	23
PROCUREMENT		
CONTRACTOR/PROVIDER (NRC)	15	8
PROVISION AGREEMENT	16	15
PROVISION REQUEST	16	15
Total	47	38
RADIOACTIVE MATERIALS		
FUEL ASSEMBLY	2	5
PACKAGE	1	1
RADIOACTIVE MATERIAL (ACCT)	12	0
SHIPMENT	2	3
Total	17	9
REGULATORY		
GUIDE/STANDARD (NRC)	1	16
INTERNATIONAL AGREEMENT	0	4
REGULATION	1	26
STATUTE	0	8
Total	2	54

EXHIBIT II-11

LOGICAL DATABASE PRODUCTIVITY GAINS DETAIL

Logical Database	Entity Redundancy Factor	Un-Met Needs Factor
RESEARCH		
INTERAGENCY AGREEMENT (TECH)	1	15
RESEARCH PROGRAM	2	3
Total	3	18
SITE		
FACILITY (NON-REACTOR)	3	6
SITE	11	6
UNIT	21	1
Total	35	13
STATE		
DEMOGRAPHICS	5	3
ECONOMIC INFORMATION	0	6
POWER UTILITY	0	8
PUBLIC UTILITY COMMISSION	0	1
STATE	1	4
Total	6	22
VENDOR		
DESIGN	0	13
TOPICAL REPORT	0	6
VENDOR	13	1
Total	13	20

EXHIBIT II-11

LOGICAL DATABASE
PRODUCTIVITY GAINS DETAIL

Logical Database	Entity Redundancy Factor	Un-Met Needs Factor
SPECIAL PURPOSE ENTITIES		
COST STANDARDS	0	2
DRILL	0	13
FEE	3	3
FOIA REQUEST	0	16
OPEN "TMI" ITEM	0	9
PATENT	0	0
TRAINING	1	22
UNION	0	2
Total	4	67
GENERAL PURPOSE ENTITIES		
ADVISOR/CONSULTANT/EXPERT	0	81
COMMITTEE	0	81
INQUIRY	0	20
MEETING	0	81
PROJECT	9	2
WORK ITEM	16	4
Total	25	269

3. APPLICATION SUBJECT AREAS

An understanding of the number and type of major application subject areas which would be serviced by a database provides additional information for database priority. An application subject area is a group of applications concerning one subject. Generally, it is preferable to develop databases which serve many application subject areas first.

To determine which databases potentially serve the greatest number of major application subject areas, we performed the following analysis:

- Grouped the current systems (within the scope of our study) into defined application subject areas;
- Using the Enterprise Model, identified which entities are used by each system;
- Identified the logical databases which contain these entities;
- Counted the number of application subject areas served by each of the databases; and
- Ranked the logical databases in descending order of number of application subject areas served.

Exhibit II-12 summarizes our analysis. Some databases received the same rank since the databases served the same number of application subject areas. Exhibit II-13 shows the details of the number of application subject areas served. A description of each of these application subject areas is shown in Appendix B. However, this listing of application subject areas may not be complete. Within the scope of our work, we examined 81 major systems. Many systems were not examined, including microcomputer based systems. Therefore, this listing should be viewed as only an approximation of the probable number of major application subject areas of interest to NRC.

A listing of the entities for each of the application subject areas is presented in Appendix E.

EXHIBIT II-12

PRIORITY RANKING BASED ON SUPPORTED APPLICATION SUBJECT AREAS

Logical Database	Total Application Subject Areas Supported	Rank+
EVENTS	14	1
ORGANIZATION	14	1
PERSONNEL	13	3
SITE	13	3
FINANCE/ACCOUNTING	12	5
REGULATORY	11	6
LEGAL	11	6
INSPECTION	11	6
RADIOACTIVE MATERIALS	11	6
LICENSE	10	10
PROCUREMENT	9	11
ISSUES	9	11
LICENSING ACTION	8	13
ENFORCEMENT	8	13
ALLEGATION	8	13
STATE	7	16
OPERATOR	7	16
COMMISSION	6	18
RESEARCH	6	18
VENDOR	6	18
HARDWARE	6	18
BUILDING/PROPERTY	4	22
SPECIAL PURPOSE ENTITIES	11	*
GENERAL PURPOSE ENTITIES	10	*

+Note: Duplicate rankings assigned to logical databases with identical values in the ranking criterion.

*Note: Not ranked. Entities do not form a logical database.

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EXHIBIT II-13 DATABASES VERSUS SUPPORTED APPLICATION SUBJECT AREAS

	Logical Database																							
Application Subject Area	ALLEG'N	BLDG/PRP	COMM	ENFORCE	EVENTS	FIN/ACC	HRDWARE	INSPECT	ISSUES	LEGAL	LICENSE	LIC ACT'N	OPERATR	ORG'Z'N	PERS'NEL	PROCURE	RAD MATS	REG'TORY	RESRCH	SITE	STATE	VENDR	SPEC PUR	GEN'L PUR
Allegation Tracking	XXXX			XXXX	XXXX			XXXX					XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		XXXX		XXXX		
Enforcement Action Tracking	XXXX		XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		XXXX	XXXX	XXXX	XXXX		XXXX		XXXX	XXXX						
Events Reporting & Analysis					XXXX		XXXX										XXXX		XXXX	XXXX				
Exposure Monitoring					XXXX								XXXX				XXXX		XXXX	XXXX	XXXX			
Financial Administration		XXXX				XXXX								XXXX		XXXX								XXXX
General Purpose																								XXXX
Hearing Status			XXXX						XXXX	XXXX	XXXX	XXXX				XXXX		XXXX						
Inspection Control					XXXX		XXXX	XXXX			XXXX	XXXX	XXXX	XXXX	XXXX		XXXX	XXXX		XXXX			XXXX	
Inventory Management		XXXX				XXXX								XXXX		XXXX								
Investigation Reporting	XXXX			XXXX				XXXX		XXXX	XXXX			XXXX	XXXX							XXXX		
Issues (Safety Related)					XXXX		XXXX	XXXX	XXXX	XXXX			XXXX	XXXX			XXXX	XXXX	XXXX	XXXX	XXXX		XXXX	
Licensee Perf. Eval'n	XXXX			XXXX	XXXX			XXXX			XXXX	XXXX	XXXX							XXXX				
Manpower Reporting						XXXX		XXXX	XXXX			XXXX		XXXX	XXXX									
Nucl'r Facil's Status Report					XXXX												XXXX			XXXX				
Nucl'r Facilities Licensing	XXXX		XXXX	XXXX	XXXX			XXXX	XXXX	XXXX	XXXX	XXXX				XXXX		XXXX		XXXX	XXXX	XXXX	XXXX	
Nuclear Incident Estimating					XXXX		XXXX										XXXX		XXXX	XXXX	XXXX			
Nuclear Material Tracking											XXXX						XXXX				XXXX		XXXX	XXXX
Operator Licensing				XXXX						XXXX	XXXX		XXXX					XXXX		XXXX			XXXX	
Payroll						XXXX								XXXX	XXXX									
Personnel Management	XXXX					XXXX				XXXX				XXXX	XXXX								XXXX	XXXX
Personnel Security		XXXX													XXXX									
Plant Status Reporting					XXXX												XXXX			XXXX				
Policy Guidance			XXXX			XXXX			XXXX	XXXX				XXXX				XXXX						XXXX
Procurement Control		XXXX				XXXX								XXXX	XXXX	XXXX								XXXX
Project Control						XXXX								XXXX	XXXX	XXXX							XXXX	XXXX
Reactor Construction Report	XXXX			XXXX	XXXX			XXXX	XXXX	XXXX	XXXX	XXXX								XXXX		XXXX	XXXX	
Reactor Licensing	XXXX		XXXX	XXXX	XXXX			XXXX	XXXX	XXXX	XXXX	XXXX				XXXX		XXXX		XXXX	XXXX	XXXX	XXXX	
Regulatory Reporting			XXXX						XXXX	XXXX								XXXX			XXXX			XXXX
Research (Project Control)						XXXX			XXXX					XXXX	XXXX	XXXX			XXXX					XXXX
Special Purpose																							XXXX	
Staffing						XXXX								XXXX	XXXX								XXXX	
Systems/Component Analysis					XXXX		XXXX	XXXX									XXXX	XXXX	XXXX			XXXX		
Travel Control						XXXX									XXXX									XXXX
Total	8	4	6	8	14	12	6	11	9	11	10	8	7	14	13	9	11	11	6	13	7	6	11	10

4. SEQUENCING REQUIREMENTS

Databases which serve the same application subject areas should be developed as closely together as possible. In this manner, a complete application subject area can be implemented in a shorter period of time.

We analyzed groupings of databases to determine which sequence would maximize the number of health and safety oriented application subject areas. The results of our analysis is shown in Exhibit II-14. The databases are ranked according to the sequence which maximizes the number of health and safety oriented application subject areas. Our detailed analysis is shown in Exhibit II-15.

To derive the sequence of databases, we performed the following steps:

- Selected an application subject area(s) which uses a small number of databases (i.e., Plant Status Reporting, Nuclear Facilities Reporting);
- Placed the databases serving that application subject area(s) at the beginning of the sequence (i.e., Events, Site, Radioactive Materials);
- Selected an application subject area(s) which can be completed next in sequence using the least incremental number of databases (i.e., Events Reporting and Analysis);
- Placed the databases serving that application subject area next in the database sequence (i.e., Hardware, Research);
- Repeated this process until all databases were sequenced.

The sequencing of databases under this analysis does not consider the relative importance of each of the application subject areas to the NRC users. Our approach to sequencing is quantitiative since it focuses on maximizing the number of application subject areas.

It should also be noted that although an application subject area may not be completed until all databases serving that application subject area are implemented, the major user applications for each of the databases will be developed as the databases are implemented.

EXHIBIT II-14

PRIORITY RANKING BASED ON DATABASE SEQUENCING

Logical Database	Database Sequence Rank+
EVENTS	1
RADIOACTIVE MATERIALS	1
SITE	1
HARDWARE	4
RESEARCH	4
STATE	6
OPERATOR	7
INSPECTION	8
REGULATORY	8
VENDOR	8
LICENSE	11
ENFORCEMENT	12
LEGAL	12
ISSUES	14
ORGANIZATION	14
COMMISSION	16
ALLEGATION	17
LICENSING ACTION	17
PROCUREMENT	19
FINANCE/ACCOUNTING	20
PERSONNEL	20
BUILDING/PROPERTY	22
SPECIAL PURPOSE ENTITIES	*
GENERAL PURPOSE ENTITIES	*

+Note: Duplicate rankings assigned to logical databases with identical values in the ranking criterion.

*Note: Not ranked. Entities do not form a logical database.

EXHIBIT II-15 DATABASE DEVELOPMENT SEQUENCE TO MAXIMIZE SUPPORTED APPLICATION SUBJECT AREAS

Database Sequence Rank^

	1	1	1	4	4	6	7	8	8	8	11	*	*	12	12	14	14	16	17	17	19	20	20	22
Application Subject Area	EVENTS	SITE	RAD MATS	HRDWARE	RESRCH	STATE	OPERATR	VENDR	INSPECT	REG'TORY	LICENSE	SPEC PUR	GEN'L PUR	ENFORCE	LEGAL	ISSUES	ORG'Z'N	COMM	LIC ACT'N	ALLEG'N	PROCURE	PERS'NEL	FIN/ACC	BLDG/PRP
Plant Status Reporting	XXXX	XXXX	XXXX																					
Nucl'r Facil's Status Report	XXXX	XXXX	XXXX																					
Events Reporting & Analysis	XXXX	XXXX	XXXX	XXXX	XXXX																			
Nuclear Incident Estimating	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																		
Exposure Monitoring	XXXX	XXXX	XXXX		XXXX	XXXX	XXXX																	
Systems/Component Analysis	XXXX		XXXX	XXXX	XXXX			XXXX	XXXX	XXXX														
Nuclear Material Tracking			XXXX			XXXX					XXXX	XXXX	XXXX											
Special Purpose												XXXX												
General Purpose													XXXX											
Operator Licensing		XXXX					XXXX			XXXX	XXXX	XXXX		XXXX	XXXX									
Issues (Safety Related)	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		XXXX	XXXX		XXXX			XXXX	XXXX	XXXX							
Regulatory Reporting						XXXX				XXXX			XXXX		XXXX	XXXX		XXXX						
Licensee Perf. Eval'n	XXXX	XXXX					XXXX		XXXX		XXXX			XXXX					XXXX	XXXX				
Reactor Construction Report	XXXX	XXXX						XXXX	XXXX		XXXX	XXXX		XXXX	XXXX	XXXX			XXXX	XXXX				
Hearing Status										XXXX	XXXX				XXXX	XXXX		XXXX	XXXX		XXXX			
Nucl'r Facilities Licensing	XXXX	XXXX				XXXX		XXXX	XXXX	XXXX	XXXX	XXXX		XXXX	XXXX	XXXX		XXXX	XXXX	XXXX	XXXX			
Reactor Licensing	XXXX	XXXX				XXXX		XXXX	XXXX	XXXX	XXXX	XXXX		XXXX	XXXX	XXXX		XXXX	XXXX	XXXX	XXXX			
Allegation Tracking	XXXX	XXXX	XXXX				XXXX	XXXX	XXXX	XXXX				XXXX			XXXX			XXXX	XXXX	XXXX		
Enforcement Action Tracking	XXXX		XXXX	XXXX			XXXX		XXXX	XXXX	XXXX			XXXX	XXXX			XXXX	XXXX	XXXX		XXXX	XXXX	
Inspection Control	XXXX	XXXX	XXXX	XXXX			XXXX		XXXX	XXXX	XXXX	XXXX					XXXX		XXXX			XXXX		
Investigation Reporting								XXXX	XXXX		XXXX			XXXX	XXXX		XXXX			XXXX		XXXX		
Research (Project Control)					XXXX								XXXX			XXXX	XXXX				XXXX	XXXX	XXXX	
Manpower Reporting									XXXX							XXXX	XXXX		XXXX			XXXX	XXXX	
Payroll																	XXXX					XXXX	XXXX	
Personnel Management												XXXX	XXXX		XXXX		XXXX			XXXX		XXXX	XXXX	
Policy Guidance										XXXX			XXXX		XXXX	XXXX	XXXX	XXXX					XXXX	
Project Control												XXXX	XXXX				XXXX				XXXX	XXXX	XXXX	
Staffing												XXXX					XXXX					XXXX	XXXX	
Travel Control													XXXX									XXXX	XXXX	
Financial Administration													XXXX				XXXX				XXXX		XXXX	XXXX
Inventory Management																	XXXX				XXXX		XXXX	XXXX
Procurement Control													XXXX				XXXX				XXXX	XXXX	XXXX	XXXX
Personnel Security																						XXXX		XXXX

^Note: Duplicate rankings assigned to logical databases with identical values in the ranking criterion.

*Note: Not Ranked. Entities do not form a logical database.

5. ORGANIZATIONAL USAGE

Another criterion for determining database development sequence is the organizational demand for the databases. In general, databases which are used by a high proportion of users should be developed before databases which are used by few organizations.

For the Enterprise Model, we asked each organization in the NRC to indicate which of the data entities are required by their organization.

Usage is defined as the number of times the entities in a given database could be used by all organizations. For each database, usage is calculated as the sum of:

Organization (1..n) Requiring Entity (1..n)
x
Number of Staff in the Organization.

Although we know that each staff member in an organization does not use every entity required by the organization, this method is a useful approximation for estimating usage. This method weights organizational usage by organization size. Organizational staffing levels were obtained from the FTE Permanent Full-Time Report. The logical databases are ranked in descending order of demand in Exhibit II-16. Exhibit II-17 shows the usage by entity for each of the databases.

For some databases, the potential database usage shown exceeds the number of NRC personnel. This occurs because the potential database usage is equal to the sum of the maximum potential usage of individual entities in the database.

EXHIBIT II-16

PRIORITY RANKING BASED ON ORGANIZATIONAL USAGE

Logical Database	Potential Database Usage	Rank
LICENSE	8,532	1
ISSUES	6,669	2
FINANCE/ACCOUNTING	6,155	3
HARDWARE	6,109	4
LEGAL	5,887	5
INSPECTION	5,261	6
SITE	5,108	7
LICENSING ACTION	4,480	8
REGULATORY	4,376	9
ENFORCEMENT	4,331	10
EVENTS	3,909	11
PERSONNEL	3,681	12
VENDOR	3,302	13
STATE	2,790	14
ALLEGATION	2,590	15
BUILDING/PROPERTY	2,574	16
RESEARCH	2,011	17
COMMISSION	1,846	18
RADIOACTIVE MATERIALS	1,745	19
PROCUREMENT	1,414	20
ORGANIZATION	1,381	21
OPERATOR	1,180	22
SPECIAL PURPOSE ENTITIES	5,171	*
GENERAL PURPOSE ENTITIES	13,374	*

---

*Note: Not Ranked. Entities do not form a logical database.

Source: Enterprise Model,
FTE Permanent Full-Time Report

EXHIBIT II-17

LOGICAL DATABASE USAGE DETAIL

Logical Database	Number of Organizations Requiring Entity	Potential Entity Usage
ALLEGATION		
ALLEGATION	40	1,934
INVESTIGATION (CASE)	13	656
Total	53	2,590
BUILDING/PROPERTY		
BUILDING (NRC)	10	330
EQUIPMENT (NRC TECHNICAL)	16	784
PHYSICAL SECURITY (NRC)	12	474
PROPERTY (NRC)	18	869
VISITOR	4	117
Total	60	2,574
COMMISSION		
COMMISSION ORDER	18	796
COMMISSION PAPER	21	1,050
Total	39	1,846
ENFORCEMENT		
DEVIATION	31	1,584
ENFORCEMENT ACTION	26	1,103
VIOLATION	32	1,644
Total	89	4,331
EVENTS		
EVENT	44	2,298
EXPOSURE	14	684
RELEASE	13	668
THREAT	7	259
Total	78	3,909

EXHIBIT II-17

LOGICAL DATABASE USAGE DETAIL

Logical Database	Number of Organizations Requiring Entity	Potential Entity Usage
FINANCE/ACCOUNTING		
BUDGET	46	1,987
DECISION UNIT	22	1,050
G/L ACCOUNT	1	39
PLANNED ACCOMPLISHMENT	31	1,117
TRAVEL	47	1,962
Total	147	6,155
HARDWARE		
COMPONENT	21	1,371
DEFICIENCY	20	1,215
STRUCTURE	12	960
SYSTEM	29	1,690
TEST	14	873
Total	96	6,109
INSPECTION		
INSPECTION	33	1,741
INSPECTION MODULE	20	1,118
INSPECTION PROGRAM	19	964
OUTSTANDING ITEM (INSPECTION)	24	1,438
Total	96	5,261
ISSUES		
BACKFIT ISSUE	14	748
BULLETIN	27	1,627
GENERIC LETTER	27	1,673
GENERIC/US ISSUE	19	1,182
ISSUE (GENERAL)	28	1,439
Total	115	6,669

EXHIBIT II-17

LOGICAL DATABASE USAGE DETAIL

Logical Database	Number of Organizations Requiring Entity	Potential Entity Usage
LEGAL		
APPEAL	15	701
CASE (LEGAL)	23	964
DECISION	18	769
HEARING	14	663
INTERVENOR	13	668
PETITION	16	778
PLEADING	15	710
WITNESS	13	634
Total	127	5,887
LICENSE		
LICENSE	37	1,688
LICENSE APPLICANT	13	785
LICENSE APPLICATION	18	1,010
LICENSEE	49	2,182
LICENSEE PLAN	18	1,110
TECH SPEC/LICENSE CONDITION	28	1,757
Total	163	8,532
LICENSING ACTION		
LICENSE COMMITMENT	26	1,317
LICENSING ACTION	40	2,090
OPEN ITEM (LICENSING)	15	1,073
Total	81	4,480
OPERATOR		
EXAMINATION (OPERATOR)	6	346
REACTOR OPERATOR	15	834
Total	21	1,180

EXHIBIT II-17

LOGICAL DATABASE USAGE DETAIL

Logical Database	Number of Organizations Requiring Entity	Potential Entity Usage
ORGANIZATION		
ORGANIZATION	22	697
POSITION	18	684
Total	40	1,381
PERSONNEL		
EMPLOYEE (NRC)	57	2,346
GRIEVANCE	12	532
PERSONNEL ACTION	11	265
RECRUIT/APPLICANT	15	538
Total	95	3,681
PROCUREMENT		
CONTRACTOR/PROVIDER (NRC)	34	1,414
PROVISION AGREEMENT	0	0
PROVISION REQUEST	0	0
Total	34	1,414
RADIOACTIVE MATERIALS		
FUEL ASSEMBLY	5	334
PACKAGE	7	388
RADIOACTIVE MATERIAL (ACCT)	18	742
SHIPMENT	7	281
Total	37	1,745
REGULATORY		
GUIDE/STANDARD (NRC)	27	1,508
INTERNATIONAL AGREEMENT	3	111
REGULATION	45	1,978
STATUTE	16	779
Total	91	4,376

EXHIBIT II-17

LOGICAL DATABASE USAGE DETAIL

Logical Database	Number of Organizations Requiring Entity	Potential Entity Usage
RESEARCH		
INTERAGENCY AGREEMENT (TECH)	26	1,171
RESEARCH PROGRAM	17	840
Total	43	2,011
SITE		
FACILITY (NON-REACTOR)	27	1,173
SITE	42	2,146
UNIT	40	1,789
Total	109	5,108
STATE		
DEMOGRAPHICS	11	716
ECONOMIC INFORMATION	7	523
POWER UTILITY	10	613
PUBLIC UTILITY COMMISSION	4	247
STATE	13	691
Total	45	2,790
VENDOR		
DESIGN	16	1,221
TOPICAL REPORT	8	635
VENDOR	28	1,446
Total	52	3,302

EXHIBIT II-17

LOGICAL DATABASE USAGE DETAIL

Logical Database	Number of Organizations Requiring Entity	Potential Entity Usage
SPECIAL PURPOSE ENTITIES		
COST STANDARDS	3	157
DRILL	14	746
FEE	19	893
FOIA REQUEST	24	967
OPEN "TMI" ITEM	10	619
PATENT	1	13
TRAINING	38	1,661
UNION	4	115
Total	113	5,171
GENERAL PURPOSE ENTITIES		
ADVISOR/CONSULTANT/EXPERT	78	3,008
COMMITTEE	80	3,302
INQUIRY	28	1,236
MEETING	81	3,316
PROJECT	19	1,039
WORK ITEM	34	1,473
Total	320	13,374

6. RECORD VOLUME

The estimated record volume of a logical database is a measure of the need to automate the database. Generally, the higher the volume, the greater the need to automate the database. Volume is defined as the total number of occurrences of an entity (e.g., 2500 events). The total record volume for a database is the sum of the volumes of each of the individual entities in the database. Record volumes were obtained from the Data Entity Dictionary. Where ranges were provided we used the midpoint of the range as the record volume.

The logical databases are ranked in descending order of record volume in Exhibit II-18. Exhibit II-19 shows the record volume for each entity in each database. The logical databases "Radioactive Materials" and "Events" are ranked high due to the volumes associated with the entities "Shipment" and "Exposure".

EXHIBIT II-18

LOGICAL DATABASE PRIORITY RANKING
BASED ON RECORD VOLUME

Logical Database	Record Volume	Rank
RADIOACTIVE MATERIALS	3,126,600	1
EVENTS	156,525	2
PROCUREMENT	48,950	3
LICENSE	43,440	4
BUILDING/PROPERTY	37,812	5
HARDWARE	27,630	6
FINANCE/ACCOUNTING	25,740	7
INSPECTION	25,690	8
PERSONNEL	17,770	9
LICENSING ACTION	11,400	10
SITE	11,150	11
ENFORCEMENT	6,750	12
OPERATOR	6,500	13
LEGAL	6,007	14
ISSUES	5,546	15
ORGANIZATION	4,605	16
VENDOR	2,610	17
ALLEGATION	1,975	18
REGULATORY	1,390	19
COMMISSION	725	20
STATE	453	21
RESEARCH	70	22
SPECIAL PURPOSE ENTITIES	15,279	*
GENERAL PURPOSE ENTITIES	11,460	*

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*Note: Not Ranked. Entities do not form a logical database.

Source: Data Entity Dictionary

EXHIBIT II-19

LOGICAL DATABASE RECORD VOLUME DETAIL

Logical Database	Record Volume
ALLEGATION	
ALLEGATION	1,500
INVESTIGATION (CASE)	475
Total	1,975
BUILDING/PROPERTY	
BUILDING (NRC)	100
EQUIPMENT (NRC TECHNICAL)	5,000
PHYSICAL SECURITY (NRC)	1,412
PROPERTY (NRC)	16,300
VISITOR	15,000
Total	37,812
COMMISSION	
COMMISSION ORDER	225
COMMISSION PAPER	500
Total	725
ENFORCEMENT	
DEVIATION	350
ENFORCEMENT ACTION	2,600
VIOLATION	3,800
Total	6,750
EVENTS	
EVENT	5,000
EXPOSURE	151,000
RELEASE	400
THREAT	125
Total	156,525

EXHIBIT II-19

LOGICAL DATABASE RECORD VOLUME DETAIL

Logical Database	Record Volume
FINANCE/ACCOUNTING	
BUDGET	-
DECISION UNIT	65
G/L ACCOUNT	200
PLANNED ACCOMPLISHMENT	475
TRAVEL	25,000
Total	25,740
HARDWARE	
COMPONENT	7,000
DEFICIENCY	9,000
STRUCTURE	1,050
SYSTEM	580
TEST	10,000
Total	27,630
INSPECTION	
INSPECTION	6,750
INSPECTION MODULE	2,675
INSPECTION PROGRAM	65
OUTSTANDING ITEM (INSPECTION)	16,200
Total	25,690
ISSUES	
BACKFIT ISSUE	35
BULLETIN	4
GENERIC LETTER	35
GENERIC/US ISSUE	460
ISSUE (GENERAL)	5,012
Total	5,546

EXHIBIT II-19

LOGICAL DATABASE RECORD VOLUME
DETAIL

Logical Database	Record Volume
LEGAL	
APPEAL	80
CASE (LEGAL)	50
DECISION	1,750
HEARING	75
INTERVENOR	12
PETITION	40
PLEADING	3,250
WITNESS	750
Total	6,007
LICENSE	
LICENSE	15,000
LICENSE APPLICANT	8,500
LICENSE APPLICATION	3,750
LICENSEE	13,440
TECH SPEC/LICENSE CONDITION	2,750
Total	43,440
LICENSING ACTION	
LICENSE COMMITMENT	2,500
LICENSING ACTION	6,900
OPEN ITEM (LICENSING)	2,000
Total	11,400
OPERATOR	
EXAMINATION (OPERATOR)	2,500
REACTOR OPERATOR	4,000
Total	6,500
ORGANIZATION	
ORGANIZATION	805
POSITION	3,800
Total	4,605

EXHIBIT II-19

LOGICAL DATABASE RECORD VOLUME DETAIL

Logical Database	Record Volume
PERSONNEL	
EMPLOYEE (NRC)	3,500
GRIEVANCE	270
PERSONNEL ACTION	12,000
RECRUIT/APPLICANT	2,000
Total	17,770
PROCUREMENT	
CONTRACTOR/PROVIDER (NRC)	4,860
PROVISION AGREEMENT	24,900
PROVISION REQUEST	19,190
Total	48,950
RADIOACTIVE MATERIALS	
FUEL ASSEMBLY	25,000
PACKAGE	1,600
RADIOACTIVE MATERIAL (ACCOUNT)	300,000
SHIPMENT	2,800,000
Total	3,126,600
REGULATORY	
GUIDE/STANDARD (NRC)	150
INTERNATIONAL AGREEMENT	25
REGULATION	15
STATUTE	1,200
Total	1,390
RESEARCH	
INTERAGENCY AGREEMENT (TECH)	60
RESEARCH PROGRAM	10
Total	70

EXHIBIT II-19

LOGICAL DATABASE RECORD VOLUME DETAIL

Logical Database	Record Volume
SITE	
FACILITY (NON-REACTOR)	175
LICENSEE PLAN	300
SITE	10,500
UNIT	175
Total	11,150
STATE	
DEMOGRAPHICS	150
ECONOMIC INFORMATION	-
POWER UTILITY	200
PUBLIC UTILITY COMMISSION	50
STATE	53
Total	453
VENDOR	
DESIGN	210
TOPICAL REPORT	1,750
VENDOR	650
Total	2,610
SPECIAL PURPOSE ENTITIES	
COST STANDARDS	3
DRILL	75
FEE	8,000
FOIA REQUEST	1,250
OPEN "TMI" ITEM	750
PATENT	400
TRAINING	4,800
UNION	1
Total	15,279

EXHIBIT II-19

LOGICAL DATABASE RECORD VOLUME DETAIL

Logical Database	Record Volume
GENERAL PURPOSE ENTITIES	
WORK ITEM	5,000
ADVISOR/CONSULTANT/EXPERT	500
COMMITTEE	60
INQUIRY	400
MEETING	500
PROJECT	5,000
Total	11,460

C. DATABASE SCORES AND CLASSIFICATIONS

Exhibit II-20 summarizes the scoring of each of the databases based on the six quantitative criteria discussed on the previous pages.

The total score for each database is the sum of the individual ranks on each of the criteria. Priority classifications of A, B or C were assigned to each of the databases where A is the highest priority. Priority classification parameters were established at one standard deviation above and below the mean.

An evaluation of qualitative factors discussed below may justify some modifications to the priority order determined as a result of quantitative analysis. Generally, if modifications are required, the changes should only be made within a classification. That is, if it is determined that a class B database should receive a higher priority, the change in the order of development should only be made among the class B databases (except for a special reason as judged by senior management).

Our assessment of modifications to this sequence is presented in our recommendations in Section III.

D. QUALITATIVE FACTORS

In addition to determining development priority based on quantitative measures, qualitative factors should also be considered.

1. Enterprise Model Issues

During the development of the Enterprise Model, issues were identified which may have an impact on the priority for developing databases within the CDN. Each issue is restated below and its potential impact on development priority assessed. These issues and assessments are presented so that NRC can apply qualitative judgement to the quantitative analysis of development priorities shown in this report. At this time, development priorities in this report are based strictly on quantitative measures.

- Few new reactors are being licensed.

  A reduction in license applications may place greater attention on maintenance of existing plants. Generic and backfit issues could, therefore, receive a higher development priority since some of these issues address health and safety considerations with respect to plant maintenance.

- NRC is sustaining significant budget cutbacks.

EXHIBIT II-20

LOGICAL DATABASE DEVELOPMENT PRIORITY CLASSIFICATIONS

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

Summary Rank by Development Criteria

Logical Database	Project Man-Days	Productivity Gains	Application Subject Areas Supported	Database Sequence	Organizational Usage	Record Volume	Total Score	Priority Classification
EVENTS	13	10	1	1	11	2	38	A
SITE	15	12	3	1	7	11	49	A
LICENSE	22	1	10	11	1	4	49	A
INSPECTION	12	13	6	8	6	8	53	A
ISSUES	10	2	11	14	2	15	54	B
HARDWARE	18	5	18	4	4	6	55	B
LEGAL	16	4	6	12	5	14	57	B
REGULATORY	8	7	6	8	9	19	57	B
ENFORCEMENT	5	8	13	12	10	12	60	B
RADIOACTIVE MATERIALS	17	18	6	1	19	1	62	B
FINANCE/ACCOUNTING	21	6	5	20	3	7	62	B
LICENSING ACTION	6	15	13	17	8	10	69	B
ORGANIZATION	9	10	1	14	21	16	71	B
PROCUREMENT	19	3	11	19	20	3	75	B
PERSONNEL	20	14	3	20	12	9	78	B
VENDOR	7	16	18	8	13	17	79	B
OPERATOR	2	22	16	7	22	13	82	B
ALLEGATION	4	18	13	17	15	18	85	C
RESEARCH	3	21	18	4	17	22	85	C
STATE	11	17	16	6	14	21	85	C
BUILDING/PROPERTY	14	9	22	22	16	5	88	C
COMMISSION	1	20	18	16	18	20	93	C
SPECIAL PURPOSE ENTITIES	*	*	*	*	*	*	*	*
GENERAL PURPOSE ENTITIES	*	*	*	*	*	*	*	*

*Note: Not ranked. Entities do not form a logical database.

Mean	68
Std. Deviation	15

This indicates a need to conserve resources by sharing data.

- FOIA requests could potentially increase.

  The FOIA volume would still be small relative to other types of data. Development priority would not be significantly affected.

- At some point in time there may be a standard reactor design.

  If a standard design is adopted, the impact would be in the long term (beyond five years) and would not effect current CDN activities.

- There could be a decrease in elapsed reactor licensing time.

  This could indicate a need for faster data access, but will not impact development priority.

- NRC needs to improve consistency with industry practices.

  This indicates a need to establish data maintenance responsibility with appropriate NRC offices. Priority is not affected.

- Storage of increasing amounts of high level waste must be addressed.

  There is no immediate impact on development priority. However, resolution of this issue could result in the need to create a new database.

- The number of resident inspectors may increase.

  If there is a significant increase, inspection data may receive a higher priority to accommodate increased volumes and usage.

- The number of agreement states could potentially increase.

  Even with an increase in the number of agreement states, the volume of data would still remain relatively low. Development priority would not be affected.

- The impact of ex parte on data access must be taken into account.

Ex parte rules could result in the need to create separate databases or stringent data access (security) procedures. Further investigation is required to determine *what* data is affected by *ex parte*.

- A change in regulations could impact data requirements.

  The impact of a change in regulations must be reviewed on a case-by-case basis. For example, changes to 10 CFR Part 35 (medical) or 10 CFR Part 39 (well-logger) could change volumes and/or types of data reported relative to material licenses, thereby impacting license data priority.

- There may be a need to share data with organizations outside of NRC.

  This indicates a potential need to provide access to NRC data. It is unlikely that development priority would be affected.

- The number of allegations is likely to increase.

  Apparently the volume of allegations increases as new reactors go online. As the number of new reactors planned to go operational in the next few years is relatively high, the volume of Allegations is expected to increase. Because of the sensitive nature of allegations data, the development priority is likely to increase.

- NRC may consolidate its offices into one building.

  Consolidation would impact the telecommunications network, not data priority.

- Goals assigned to an office may change.

  A change in an office's existing goal would shift responsibility for maintaining data or the need to access data. There would be no impact on priority.

- NRC may adopt a chargeback methodology.

  A chargeback procedure would probably create a new function within the existing financial reporting system. Development priority, from a data viewpoint, would not be affected.

2. Management Considerations

Listed below are implementation considerations identified during the Data Requirements task of the CDN planning process. These considerations are presented so that NRC management can assess the relative importance of each on the development priority or development strategy of the various CDN databases. At this time, development priority is based strictly on quantitative measures explained elsewhere in this report.

- Status of current systems

  The status of current systems could impact the approach to developing databases. Those systems that are relatively new could lower the priority of development for certain CDN databases because these systems have typically been implemented using advanced hardware/software to make them "user friendly". Candidate databases that appear to be currently supported by recently developed systems (names of the systems are in parenthesis) include:

  -Finance/Accounting (IFMIS)

  -Allegations (AMS)

  -License (OLTS, LMS)

  In addition, there are other databases supported by systems that are operated external to the NRC. The priority for developing these databases in a CDN environment could also decrease if the need to share this data is relatively low and development effort relatively high. Candidate entities falling into this category appear to be:

  -Radioactive Materials (NMMSS)

  -Events (REIRS, LERS)

- Level of detail

  The required level of detail regarding some entities could impact data volumes, and therefore priority.

  Entities that require further refinement as to the required level of detail include:

  -Component

  -Test

- Data Dependency

The CDN Data Model, issued June 1985, identified the overall CDN database structure and the relationships within and between databases. This overall structure was developed in order to minimize future data redundancy while optimizing the number of user applications accessing that data.

In the initial stages of development of the databases only a few applications can be supported; as the number of databases implemented grows, the number of applications supported increases at an accelerated rate.

In many cases a specific application may process data in more than one database. The database development sequence will therefore determine the order of fully supported user applications as well as the extent to which particular applications are supported throughout the development cycle. Depending on which databases are needed and when they are developed, all of the required data for a specific application may not yet have been developed. Consistent with established database development methodology, interim design solutions may be required, including building tempory code tables, "skeleton" structures of other required databases, or concurrent database development (resulting in a change in database development priority). While excessive use of interim solutions is not recommended, this approach can be implemented in order to make available key applications to meet user needs while preserving the integrity of the database structure set forth in the Data Model. One of the benefits of using DBMS technology is that it more readily allows for such design solutions than traditional technology.

Our analysis of information contained in the Enterprise Model and Data Model indicates that there is insufficient information available to recommend a database sequence that eliminates or minimizes this data dependency constraint. Only a detailed knowledge of each application (in terms of data elements) and all of the databases where those data elements reside could provide the information needed to make this determination. However, it would be impractical to perform such an analysis in a timeframe consistent with the CDN plan.

One alternative solution to address this issue is to prioritize applications and then to sequence the databases to support those application priorities (resulting in a change in database priority). We anticipate, however, that it will be difficult to prioritize the applications and that if it is possible to prioritize them, it might result in a tendency to violate the integrity of the Data Model by creating redundant data elements. Finally, we anticipate that this data dependency constraint will still occur and still require interim design solutions.

- Data availability

  Information on some entities may currently not exist within NRC in a manual or automated form. Where data does not currently exist, the development priority of an entity could be lowered. Further investigation is required to determine if there are any entities which fall into this category.

- Data conversion

  In converting to the new databases, existing data should be converted automatically where possible. This determination should be made on a case-by-case basis.

- Data maintenance

  Responsibility for maintaining (add/change/delete functions) data must be established. Responsible offices should take the lead in resolving any level of detail, data availability, or data conversion issues. Responsible offices will be the key to maintaining the integrity, quality and timeliness of data creation and updates.

- Development resources

  Any constraints with respect to budgeted funds must be considered in establishing database priority or schedules.

- User acceptance

  Initial database implementations should have short timeframes and widespread usage to increase user familiarity and acceptance of the CDN concept. This is a new technology that NRC has not developed or used before. A database environment will require new roles for users and RM/D.

- Complexity

  Initial database implementations should have a low complexity to reduce implementation risk while experience is gained with new software tools.

- User level of effort

  Development timeframes should consider the impact on user level of effort required during database design and implementation in order to minimize user staffing requirements.

The potential impact on development priority of each of these qualitative factors is summarized in Exhibit II-21.

* * * * * * * * * * *

Our development strategy recommendations, the development schedule based on the quantitative evaluation, and budget estimates are presented in the remainder of this report.

EXHIBIT II-21

POTENTIAL IMPACT OF QUALITATIVE FACTORS ON DEVELOPMENT PRIORITY

ENTERPRISE MODEL ISSUES

QUALITATIVE FACTOR	DATABASE POTENTIALLY IMPACTED	POTENTIAL IMPACT ON PRIORITY
REDUCTION IN LICENSES	ISSUES	INCREASE
BUDGET CUTBACKS	ALL	INCREASE
FOIA REQUEST INCREASE	FOIA ENTITY	NONE
STANDARD REACTOR DESIGN	SITE, HARDWARE	NONE
DECREASE LICENSE TIME	LICENSE, LICENSING ACTION	NONE
CONSISTENCY WITH INDUSTRY STANDARDS	TBD	NONE
INCREASE IN HIGH LEVEL WASTE	NEW DATABASE	INCREASE
INCREASE IN RESIDENT INSPECTORS	INSPECTION	INCREASE
INCREASE IN AGREEMENT STATES	STATE	NONE
EX PARTE	TBD	TBD
REGULATORY CHANGE	CASE-BY-CASE BASIS	INCREASE OR DECREASE
SHARE DATA OUTSIDE NRC	TBD	NONE
INCREASE IN ALLEGATIONS	ALLEGATIONS	INCREASE
CONSOLIDATE OFFICES	NONE	NONE
CHANGE IN OFFICE GOALS	ANY	NONE
CHARGEBACK METHODOLOGY	FINANCE/ACCOUNTING	NONE

EXHIBIT II-21
(CONT'D)

MANAGEMENT CONSIDERATIONS

QUALITATIVE FACTOR	DATABASE POTENTIALLY IMPACTED	POTENTIAL IMPACT ON PRIORITY
STATUS OF CURRENT SYSTEMS	EVENTS	DECREASE
	FINANCE/ACCOUNTING	DECREASE
	RADIOACTIVE MATERIALS	DECREASE
	ALLEGATIONS	DECREASE
	LICENSE	DECREASE
DATA DEPENDENCY	ANY	INCREASE OR DECREASE
LEVEL OF DETAIL	HARDWARE	INCREASE
DATA AVAILABILITY	HARDWARE	DECREASE
DATA CONVERSION	CASE-BY-CASE	NONE
DATA MAINTENANCE	CASE-BY-CASE	NONE
DEVELOPMENT RESOURCES	CASE-BY-CASE	UNKNOWN
USER ACCEPTANCE	CASE-BY-CASE	NONE
COMPLEXITY	CASE-BY-CASE	INCREASE OR DECREASE
USER LEVEL OF EFFORT	CASE-BY-CASE	INCREASE OR DECREASE

III. DEVELOPMENT STRATEGY

In this section we present our detailed strategy recommendations and cost and schedule estimates. The information is organized as follows:

- Development strategy recommendations;
- Schedule for developing the databases based on quantitative factors; and
- An estimate of the cost for implementing the plan to be used for budget planning.

A. DEVELOPMENT STRATEGY RECOMMENDATIONS

We recommend that the NRC develop the CDN databases in three phases:

- PHASE I--FINALIZE DATABASE PRIORITIES AND DEVELOPMENT TOOLS
- PHASE II--DEVELOP AN INFRASTRUCTURE FOR DEVELOPMENT
- PHASE III--IMPLEMENT DATABASES

Below we summarize the key activities that should be included in each phase. Exhibit III-1 illustrates the overall schedule. Detail costs and schedules for Phase III can be found in Sections IIIB and IIIC on the following pages.

PHASE I--FINALIZE DATABASE PRIORITIES AND DEVELOPMENT TOOLS

The purpose of this phase is to make final assessments on the priority of database development as well as the tools to be used in developing the databases. Modifications to the preliminary strategic data plan should be made as required.

I-1 Evaluate qualitative factors.

RM/D should evaluate the qualitative factors discussed in Section II, consult with the CDN liaisons to obtain the perspective of each of the offices, and make recommendations on any changes in development priorities to the ADP Steering Group. Each of the qualitative factors can affect the relative priority of development for the databases (currently, priority is established on a quantitative basis). The ADP Steering Group should make a decision on whether or not the development priority should

EXHIBIT III-1

OVERALL CDN DATABASE DEVELOPMENT SCHEDULE

```
                                                                             MONTHS FROM START
         CDN PLAN PHASE

--------------------------------    1        2        3        4        5        6        7        8        9       10       11      12.........68
------------------------------------------------------------------------------------------------------------------------------------------------------

PHASE I--FINALIZE DATABASE      ++++++++++++++++++++++++++++++++++++++++++++++++++++++
         PRIORITIES AND
         DEVELOPMENT TOOLS


PHASE II--DEVELOP                                 ++++++++++++++++++++++++++++++++++++++++++++++++++++++
          INFRASTRUCTURE


PHASE III--IMPLEMENT DATABASES                                                                          ++++++++++++++++++++++++++++++............+++
```

be modified based on RM/D's recommendations. If priorities are changed, the detail schedules for Phase III should also be updated.

I-2 Finalize the approach for general/special entities.

Currently, the entities that are included in the general and special purpose categories are not priority ranked, because these categories are not considered to be logical databases. Each entity should be reviewed and a decision made on when to implement the entity. For example, the "Fee" entity could be implemented at the same time as the Finance/Accounting database; the "Training" entity could be implemented at the same time as the Personnel database.

I-3 Conduct a pilot program to test development tools.

A major strategy in the development of the CDN databases will be to use DBMS, fourth generation language, and microcomputer-based development tools. In order to properly utilize these tools in the context of this plan, the NRC should demonstrate and evaluate the development process using these tools prior to beginning full-scale development. These tools should be used to develop prototypes of one or two key entities for:

- Detail user requirements;
- A database and its associated update application; and
- A user (reporting) application.

Each prototype should be assessed and evaluated. Recommendations for improvement in the use of each tool should be made. Key management issues should also be identified and proposed strategies for their resolution documented.

Based on the results of the prototypes, refinements to the preliminary strategic data plan should be made as necessary.

PHASE II--DEVELOP AN INFRASTRUCTURE FOR DEVELOPMENT

The purpose of this phase is to organize various NRC offices into an infrastructure that will accommodate both the development and operation of the CDN.

II-1 Develop database functions within RM/D.

Key database functions should be developed within the RM/D organization to address database administration and data analysis. These functions will be critical to the development and operation of the CDN by establishing standards and guidelines for software development, use of the data dictionary, and communications between technical, data administration and user personnel.

II-2 Develop a strategy for integrating other tasks of the CDN.

In developing the shared databases the NRC must ensure that other related activities are integrated with the those identified in this plan. Key areas that should be addressed include:

- Telecommunications;
- Hardware (e.g., timesharing and microcomputers);
- Software (both mainframe and microcomputer); and
- Office automation tools.

The NRC needs to plan for the integration of these activities and establish an integration team with responsibility for monitoring the integration.

II-3 Assign Data Maintenance Responsibilities.

Before any development activities can begin, responsibility for maintaining (i.e., creating and updating) data in the various databases must be established. The organizations who are identified as having data maintenance responsibility should be the lead organizations in the design, development and implementation efforts. Appropriate user staff in these organizations should be designated to work with the development team. These individuals should also form the membership of the ADP Working Groups for each of the database projects.

II-4 Expand the Phase I pilot program.

The entity level prototypes developed in Phase I should be expanded to simulate a more complete operation. Expansion can occur by converting current operational data into the prototype system, adding more entities to the prototype, and by increasing the number of users who have access to the prototype. This will provide the NRC with the opportunity to increase its experience with the various development tools and in the actual operation of a database (i.e., both users and technical staff will begin to "climb up" the learning curve before full scale implementation begins in Phase III).

PHASE III--IMPLEMENT DATABASES

The purpose of this phase is to implement the databases identified in this plan. Databases should be implemented sequentially (i.e., one-by-one) in the first one to two years to allow for an orderly progression of development. After the NRC has gained sufficient experience, development should occur in parallel (i.e., multiple, concurrent projects).

B. SCHEDULE

Using the development priorities based on the quantitative analysis in Section II, we developed a schedule for the implementation. This schedule includes:

- Database development and implementation;
- Update application development and implementation;
- Development of basic user applications for reporting and querying the databases; and
- Conversion of data from existing systems.

We assumed that:

- The entire development, implementation and conversion effort for all of the databases needed to be completed in approximately 5 years;
- Funds will be available; and
- NRC users and RM/D staff will be able to commit the level of effort required.

To determine the elapsed schedule for each database project we developed a standard man loading model as depicted in Exhibit III-2. We then applied this model to the estimated development man-days for contractor and NRC personnel to estimate project elapsed time as shown in Exhibit III-3. When reviewing these exhibits, it is important to note the following:

- The model optimizes the utilization of the same personnel on each project, where possible. For example, on a project with 4 analysts on Task 1 (Database Development), these same analysts also work on Tasks 2 (Update Application) and 3 (Implementation);

EXHIBIT III-2

PARAMETERS USED FOR MAN LOADING TO DETERMINE PROJECT ELAPSED SCHEDULE

```
                              TOTAL          NUMBER       NUMBER          NUMBER
                              CONTRACTOR     OF           OF              OF
          TASK                MAN-DAYS       ANALYSTS     PROGRAMMERS     NRC USERS     MODEL FOR COMPUTING ELAPSED WEEKS^
===========================   ===========    ========     ===========     =========     ==============================================================================

  1  DATABASE DEVELOPMENT     < 400             4              4               4
                                                                                                        (1)             +     (2)
                              400 - 600         5              5               5         |+++++++++++++++++++++++++++++++||++++++++++++|

                              > 600             6              6               6

                                                                                                                               (1)    +    (2)
  2  UPDATE APPLICATIONS          *             2              2               2         |-------------------------------||++++++++++++||++++++++++|
                                                                                                                                       (1)
  3  IMPLEMENTATION               *             2              0               2         |-------------------------------||++++++++++++++(+++++++++++++++++|

  4  DATA CONVERSION          < 100             2              1               2
                                                                                                         (1)                 +          (2)
                              100 - 300         3              2               3         |+++++++++++++++++++++++++++++++++++||+++++++++++++++++++++++++++|

                              > 600             4              3               4

                                                                                                                                        (1)
  5  USER APPLICATIONS            *             3              0               2         |-------------------------------||++++++++++++++++++++++++++++++++++++++++|
                                                                                                                                        (3)
                                                                                         |-------------------------------||+++++++++++++++++++++++++++++++++++++++++++|

------------------------------------------------------------------------------------
       ^  EQUATIONS FOR COMPUTING ELAPSED WEEKS

              (1)  (ESTIMATED ANALYST MAN-DAYS / NUMBER OF ANALYSTS) / 5

              (2)  (ESTIMATED PROGRAMMER MAN-DAYS / NUMBER OF PROGRAMMERS) / 5

              (3)  (ESTIMATED NRC USER MAN-DAYS / NUMBER OF NRC USERS) / 5

          NOTE:    FOR TASK 5, THE ELAPSED WEEKS WILL BE EQUAL TO THE GREATER
                     OF (1) OR (3)

          FOR TASKS 2, 3 & 5, THE NUMBER OF CONTRACTOR ANALYSTS AND PROGRAM[illegible]S
                     NOT DEPENDENT ON TOTAL CONTRACTOR MAN-DAYS
```

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT III-3 DATABASE DEVELOPMENT AND IMPLEMENTATION PROJECT SCHEDULE

Key to Exhibit:

Total Contractor	(A) = Total Contractor (Exhibit II-9)
Total NRC	(B) = Total NRC (Exhibit II-9)
Total Project	(C) = Total Project (Exhibit II-9)
Contract Management (Tasks 1 - 5)	(D) = [Total Contract Management (Exhibit II-9) / J (Project Totals)] / 5
Contract Analysts (Task 1)	(E) = 4 if A (Task 1) < 400 , 5 if 400 <= A (Task 1) <= 600, 6 if A (Task 1) > 600
Contract Analysts (Task 2)	(E) = 2
Contract Analysts (Task 3)	(E) = 2
Contract Analysts (Task 4)	(E) = 2 if A (Task 4) < 100 , 3 if 100 <= A (Task 4) <= 300, 4 if A (Task 4) > 300
Contract Analysts (Task 5)	(E) = 3
Contract Programmers (Task 1)	(F) = 4 if A (Task 1) < 400 , 5 if 400 <= A (Task 1) <= 600, 6 if A (Task 1) > 600
Contract Programmers (Task 2)	(F) = 2
Contract Programmers (Task 3)	(F) = 0
Contract Programmers (Task 4)	(F) = 1 if A (Task 4) < 100 , 2 if 100 <= A (Task 4) <= 300, 3 if A (Task 4) > 300
Contract Programmers (Task 5)	(F) = 0
NRC RM/D Staff (Tasks 1 - 5)	(G) = [Total NRC RM/D Staff (Exhibit II-9) / J (Project Totals)] / 5
NRC Users (Tasks 1,2,3,4)	(H) = E
NRC Users (Task 5)	(H) = 2
Start (Task 1)	(I) = 0
Start (Task 2)	(I) = [Contract Analyst Man-Days (Task 1, Exhibit II-9) / E (Task 1)] / 5
Start (Task 3)	(I) = [Contract Analyst Man-Days (Task 1, Exhibit II-9) / E (Task 1)] / 5
Start (Task 4)	(I) = 0
Start (Task 5)	(I) = [Contract Analyst Man-Days (Task 1, Exhibit II-9) / E (Task 1)] / 5
Project Totals	(I) = Minimum of (I (Tasks 1 - 5))
End (Task 1)	(J) = I (Task 1) + [Contract Analyst Man-Days (Task 1, Exhibit II-9) / E (Task 1)] / 5 + [Contract Programmer Man-Days (Task 1, Exhibit II-9) / F (Task 1)] / 5
End (Task 2)	(J) = I (Task 2) + [Contract Analyst Man-Days (Task 2, Exhibit II-9) / E (Task 2)] / 5 + [Contract Programmer Man-Days (Task 2, Exhibit II-9) / F (Task 2)] / 5
End (Task 3)	(J) = I (Task 3) + [Contract Analyst Man-Days (Task 3, Exhibit II-9) / E (Task 3)] / 5
End (Task 4)	(J) = I (Task 4) + [Contract Analyst Man-Days (Task 4, Exhibit II-9) / E (Task 4)] / 5 + [Contract Programmer Man-Days (Task 4, Exhibit II-9) / F (Task 4)] / 5
End (Task 5)	(J) = I (Task 5) + Maximum of ([Contract Analyst Man-Days (Task 5, Exhibit II-9) / E (Task 5)] / 5 , [NRC User Man-Days (Task 5, Exhibit II-9) / H (Task 5)] / 5)
Project Totals	(J) = Maximum of (J (Tasks 1 - 5))

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DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT III-3 DATABASE DEVELOPMENT AND IMPLEMENTATION PROJECT SCHEDULE
(cont'd)

Task Description	Manpower Requirements (Man-Days)			Staffing Levels (FTEs)					Project Elapsed Weeks Start/End Dates	
	Total Contractor (A)	Total NRC (B)	Total Project (C)	Contract Management (D)	Contract Analysts (E)	Contract Programmers (F)	NRC RM/D Staff (G)	NRC Users (H)	Start (I)	End (J)
Project - ALLEGATION										
Task 1 Database Development	168	150	317	1.0	4	4	1.9	4	0	7
Task 2 Database Update Appl. Development	29	23	51	1.0	2	2	1.9	2	5	8
Task 3 Implementation	41	47	88	1.0	2	0	1.9	2	5	9
Task 4 Data Conversion	55	47	101	1.0	2	1	1.9	2	0	6
Task 5 User Applications Development	86	73	159	1.0	3	0	1.9	2	5	10
Project Totals	379	338	717						0	10
Project - BUILDING/PROPERTY										
Task 1 Database Development	351	314	665	1.0	4	4	2.0	4	0	15
Task 2 Database Update Appl. Development	72	56	128	1.0	2	2	2.0	2	11	17
Task 3 Implementation	96	108	204	1.0	2	0	2.0	2	11	19
Task 4 Data Conversion	178	152	329	1.0	3	2	2.0	3	0	12
Task 5 User Applications Development	216	181	397	1.0	3	0	2.0	2	11	24
Project Totals	912	811	1,723						0	24
Project - COMMISSION										
Task 1 Database Development	149	133	281	0.9	4	4	1.7	4	0	6
Task 2 Database Update Appl. Development	29	23	51	0.9	2	2	1.7	2	5	7
Task 3 Implementation	39	44	84	0.9	2	0	1.7	2	5	8
Task 4 Data Conversion	14	12	25	0.9	2	1	1.7	2	0	2
Task 5 User Applications Development	86	73	159	0.9	3	0	1.7	2	5	10
Project Totals	317	284	600						0	10
Project - ENFORCEMENT										
Task 1 Database Development	240	215	455	0.9	4	4	1.8	4	0	10
Task 2 Database Update Appl. Development	43	34	77	0.9	2	2	1.8	2	8	11
Task 3 Implementation	61	69	129	0.9	2	0	1.8	2	8	13
Task 4 Data Conversion	41	35	76	0.9	2	1	1.8	2	0	5
Task 5 User Applications Development	129	109	238	0.9	3	0	1.8	2	8	15
Project Totals	515	461	975						0	15
Project - EVENTS										
Task 1 Database Development	310	277	587	1.2	4	4	2.3	4	0	13
Task 2 Database Update Appl. Development	58	45	103	1.2	2	2	2.3	2	10	15
Task 3 Implementation	80	90	170	1.2	2	0	2.3	2	10	17
Task 4 Data Conversion	259	222	482	1.2	3	2	2.3	3	0	17
Task 5 User Applications Development	173	145	318	1.2	3	0	2.3	2	10	20
Project Totals	879	779	1,658						0	20

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EXHIBIT III-3 (cont'd) DATABASE DEVELOPMENT AND IMPLEMENTATION PROJECT SCHEDULE

Task Description	Manpower Requirements (Man-Days)			Staffing Levels (FTEs)					Project Elapsed Weeks Start/End Dates	
	Total Contractor (A)	Total NRC (B)	Total Project (C)	Contract Management (D)	Contract Analysts (E)	Contract Programmers (F)	NRC RM/D Staff (G)	NRC Users (H)	Start (I)	End (J)
Project - FINANCE/ACCOUNTING										
Task 1 Database Development	1,044	932	1,976	1.1	6	6	2.2	6	0	30
Task 2 Database Update Appl. Development	216	169	384	1.1	2	2	2.2	2	22	41
Task 3 Implementation	286	324	610	1.1	2	0	2.2	2	22	47
Task 4 Data Conversion	300	257	558	1.1	4	3	2.2	4	0	14
Task 5 User Applications Development	647	544	1,191	1.1	3	0	2.2	2	22	60
Project Totals	2,493	2,226	4,718						0	60
Project - HARDWARE										
Task 1 Database Development	376	336	713	1.3	4	4	2.6	4	0	16
Task 2 Database Update Appl. Development	72	56	128	1.3	2	2	2.6	2	12	18
Task 3 Implementation	99	111	210	1.3	2	0	2.6	2	12	20
Task 4 Data Conversion	464	397	862	1.3	4	3	2.6	4	0	22
Task 5 User Applications Development	216	181	397	1.3	3	0	2.6	2	12	24
Project Totals	1,227	1,082	2,309						0	24
Project - INSPECTION										
Task 1 Database Development	313	280	593	1.1	4	4	2.3	4	0	14
Task 2 Database Update Appl. Development	58	45	103	1.1	2	2	2.3	2	10	15
Task 3 Implementation	80	91	171	1.1	2	0	2.3	2	10	17
Task 4 Data Conversion	246	210	456	1.1	3	2	2.3	3	0	17
Task 5 User Applications Development	173	145	318	1.1	3	0	2.3	2	10	20
Project Totals	869	771	1,640						0	20
Project - ISSUES										
Task 1 Database Development	373	333	707	0.8	4	4	1.7	4	0	16
Task 2 Database Update Appl. Development	72	56	128	0.8	2	2	1.7	2	12	18
Task 3 Implementation	98	111	209	0.8	2	0	1.7	2	12	20
Task 4 Data Conversion	27	23	51	0.8	2	1	1.7	2	0	3
Task 5 User Applications Development	216	181	397	0.8	3	0	1.7	2	12	24
Project Totals	786	705	1,491						0	24
Project - LEGAL										
Task 1 Database Development	553	494	1,048	0.9	5	5	1.9	5	0	19
Task 2 Database Update Appl. Development	115	90	205	0.9	2	2	1.9	2	14	24
Task 3 Implementation	152	172	325	0.9	2	0	1.9	2	14	27
Task 4 Data Conversion	41	35	76	0.9	2	1	1.9	2	0	5
Task 5 User Applications Development	345	290	635	0.9	3	0	1.9	2	14	34
Project Totals	1,207	1,082	2,288						0	34

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RESOLUTION OR OTHER FACTORS. ESTIMATES
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EXHIBIT III-3 (cont'd) DATABASE DEVELOPMENT AND IMPLEMENTATION PROJECT SCHEDULE

Task Description	Manpower Requirements (Man-Days)			Staffing Levels (FTEs)					Project Elapsed Weeks Start/End Dates	
	Total Contractor (A)	Total NRC (B)	Total Project (C)	Contract Management (D)	Contract Analysts (E)	Contract Programmers (F)	NRC RM/D Staff (G)	NRC Users (H)	Start (I)	End (J)
Project - LICENSE										
Task 1 Database Development	1,139	1,017	2,156	1.3	6	6	2.6	6	0	31
Task 2 Database Update Appl. Development	216	169	394	1.3	2	2	2.6	2	24	43
Task 3 Implementation	297	335	632	1.3	2	0	2.6	2	24	50
Task 4 Data Conversion	724	619	1,343	1.3	4	3	2.6	4	0	39
Task 5 User Applications Development	647	544	1,191	1.3	3	0	2.6	2	24	62
Project Totals	3,021	2,684	5,706						0	62
Project - LICENSING ACTION										
Task 1 Database Development	221	198	419	0.9	4	4	1.9	4	0	10
Task 2 Database Update Appl. Development	43	34	77	0.9	2	2	1.9	2	7	11
Task 3 Implementation	59	66	125	0.9	2	0	1.9	2	7	12
Task 4 Data Conversion	68	58	127	0.9	2	1	1.9	2	0	8
Task 5 User Applications Development	129	109	238	0.9	3	0	1.9	2	7	15
Project Totals	521	465	986						0	15
Project - OPERATOR										
Task 1 Database Development	145	130	275	0.9	4	4	1.8	4	0	6
Task 2 Database Update Appl. Development	29	23	51	0.9	2	2	1.8	2	5	7
Task 3 Implementation	39	44	83	0.9	2	0	1.8	2	5	8
Task 4 Data Conversion	27	23	51	0.9	2	1	1.8	2	0	3
Task 5 User Applications Development	86	73	159	0.9	3	0	1.8	2	5	10
Project Totals	327	292	619						0	10
Project - ORGANIZATION										
Task 1 Database Development	142	127	269	0.9	4	4	1.7	4	0	6
Task 2 Database Update Appl. Development	29	23	51	0.9	2	2	1.7	2	5	7
Task 3 Implementation	39	44	82	0.9	2	0	1.7	2	5	8
Task 4 Data Conversion	492	421	912	0.9	4	3	1.7	4	0	24
Task 5 User Applications Development	86	73	159	0.9	3	0	1.7	2	5	10
Project Totals	787	686	1,474						0	24
Project - PERSONNEL										
Task 1 Database Development	844	754	1,599	1.1	6	6	2.2	6	0	24
Task 2 Database Update Appl. Development	173	135	308	1.1	2	2	2.2	2	18	33
Task 3 Implementation	230	260	490	1.1	2	0	2.2	2	18	38
Task 4 Data Conversion	287	245	532	1.1	3	2	2.2	3	0	19
Task 5 User Applications Development	518	435	953	1.1	3	0	2.2	2	18	48
Project Totals	2,051	1,830	3,881						0	48

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EXHIBIT III-3
(cont'd)

DATABASE DEVELOPMENT AND IMPLEMENTATION PROJECT SCHEDULE

Task Description	Manpower Requirements (Man-Days)			Staffing Levels (FTEs)					Project Elapsed Weeks Start/End Dates	
	Total Contractor (A)	Total NRC (B)	Total Project (C)	Contract Management (D)	Contract Analysts (E)	Contract Programmers (F)	NRC RM/D Staff (G)	NRC Users (H)	Start (I)	End (J)
Project - PROCUREMENT										
Task 1 Database Development	436	390	826	1.3	5	5	2.6	5	0	15
Task 2 Database Update Appl. Development	86	68	154	1.3	2	2	2.6	2	11	19
Task 3 Implementation	117	132	248	1.3	2	0	2.6	2	11	21
Task 4 Data Conversion	656	561	1,217	1.3	4	3	2.6	4	0	32
Task 5 User Applications Development	259	218	476	1.3	3	0	2.6	2	11	26
Project Totals	1,554	1,368	2,921						0	32
Project - RADIOACTIVE MATERIAL										
Task 1 Database Development	498	445	943	1.1	5	5	2.3	5	0	17
Task 2 Database Update Appl. Development	86	68	154	1.1	2	2	2.3	2	13	20
Task 3 Implementation	123	139	263	1.1	2	0	2.3	2	13	23
Task 4 Data Conversion	246	210	456	1.1	3	2	2.3	3	0	17
Task 5 User Applications Development	259	218	476	1.1	3	0	2.3	2	13	28
Project Totals	1,212	1,080	2,292						0	28
Project - REGULATORY										
Task 1 Database Development	297	266	563	0.9	4	4	1.7	4	0	13
Task 2 Database Update Appl. Development	58	45	103	0.9	2	2	1.7	2	9	14
Task 3 Implementation	78	89	167	0.9	2	0	1.7	2	9	16
Task 4 Data Conversion	41	35	76	0.9	2	1	1.7	2	0	5
Task 5 User Applications Development	173	145	318	0.9	3	0	1.7	2	9	19
Project Totals	647	579	1,226						0	19
Project - RESEARCH										
Task 1 Database Development	164	147	311	1.0	4	4	1.9	4	0	7
Task 2 Database Update Appl. Development	29	23	51	1.0	2	2	1.9	2	5	8
Task 3 Implementation	41	46	87	1.0	2	0	1.9	2	5	9
Task 4 Data Conversion	55	47	101	1.0	2	1	1.9	2	0	6
Task 5 User Applications Development	86	73	159	1.0	3	0	1.9	2	5	10
Project Totals	375	335	710						0	10
Project - SITE										
Task 1 Database Development	269	240	509	1.1	4	4	2.2	4	0	12
Task 2 Database Update Appl. Development	43	34	77	1.1	2	2	2.2	2	9	12
Task 3 Implementation	64	72	136	1.1	2	0	2.2	2	9	14
Task 4 Data Conversion	492	421	912	1.1	4	3	2.2	4	0	24
Task 5 User Applications Development	129	109	238	1.1	3	0	2.2	2	9	16
Project Totals	997	876	1,872						0	24

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|* * * * * * * * * * * * * * * * * * * * * * * * *|
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|VARIATIONS COULD OCCUR FROM PROCUREMENT          |
|DELAYS, TECHNICAL DIFFICULTIES, ISSUE            |
|RESOLUTION OR OTHER FACTORS.  ESTIMATES          |
|COULD BE HIGHER OR LOWER BY 25%.                 |
|* * * * * * * * * * * * * * * * * * * * * * * * *|
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EXHIBIT III-3 (cont'd) DATABASE DEVELOPMENT AND IMPLEMENTATION PROJECT SCHEDULE

	Manpower Requirements (Man-Days)			Staffing Levels (FTEs)					Project Elapsed Weeks Start/End Dates	
Task Description	Total Contractor (A)	Total NRC (B)	Total Project (C)	Contract Management (D)	Contract Analysts (E)	Contract Programmers (F)	NRC RM/D Staff (G)	NRC Users (H)	Start (I)	End (J)
Project - STATE										
Task 1 Database Development	348	311	659	0.9	4	4	1.8	4	0	15
Task 2 Database Update Appl. Development	72	56	128	0.9	2	2	1.8	2	11	17
Task 3 Implementation	95	108	203	0.9	2	0	1.8	2	11	19
Task 4 Data Conversion	96	82	177	0.9	2	1	1.8	2	0	11
Task 5 User Applications Development	216	181	397	0.9	3	0	1.8	2	11	24
Project Totals	826	738	1,564						0	24
Project - VENDOR										
Task 1 Database Development	212	189	401	1.2	4	4	2.3	4	0	9
Task 2 Database Update Appl. Development	43	34	77	1.2	2	2	2.3	2	7	10
Task 3 Implementation	58	65	123	1.2	2	0	2.3	2	7	12
Task 4 Data Conversion	191	164	355	1.2	3	2	2.3	3	0	13
Task 5 User Applications Development	129	109	238	1.2	3	0	2.3	2	7	14
Project Totals	633	561	1,194						0	14
Project - SPECIAL PURPOSE ENTITIES										
Task 1 Database Development	534	477	1,012	*	*	*	*	*	*	*
Task 2 Database Update Appl. Development	115	90	205	*	*	*	*	*	*	*
Task 3 Implementation	150	170	320	*	*	*	*	*	*	*
Task 4 Data Conversion	68	58	127	*	*	*	*	*	*	*
Task 5 User Applications Development	345	290	635	*	*	*	*	*	*	*
Project Totals	1,213	1,086	2,299						*	*
Project - GENERAL PURPOSE ENTITIES										
Task 1 Database Development	386	345	730	*	*	*	*	*	*	*
Task 2 Database Update Appl. Development	86	68	154	*	*	*	*	*	*	*
Task 3 Implementation	111	126	237	*	*	*	*	*	*	*
Task 4 Data Conversion	355	304	659	*	*	*	*	*	*	*
Task 5 User Applications Development	259	218	476	*	*	*	*	*	*	*
Project Totals	1,197	1,059	2,256						*	*
Total All Projects	24,944	22,177	47,121						N/A	N/A

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*Note: Staffing Levels and Project Elapsed Weeks is not presented for Special Purpose and General Purpose Entities. Refer to the Strategic Data Plan for a discussion of the development and implementation of Special Purpose and General Purpose Entities.

- The model assumes that any programming activities needed in Task 3 (Implementaton) uses programmers in other tasks; these tasks are appropriately loaded with the necessary programmer man-days;

- For relatively small projects (i.e., Allegations, Commission, Operator, and Research), the man loading would probably be slightly *less* than presented in the model in order to optimize the number of personnel on the project;

- For relatively large projects (i.e., Finance/Accounting, License, and Personnel), the man loading would probably be slightly *larger* that shown in the model in order to accelerate the schedule; and

- Ideally, data conversion activities should end at about the same time as Task 3 (Implementation). However, the staffing model for Task 4 (Data Conversion) resulted in a significantly early finish in 13 projects and a significantly late finish in 3 projects. Upon further analysis it was determined that there is no *single* model for Task 4 that will schedule conversion activities properly. Generally this can be attributed to the fact that there is little or no relationship of the conversion activities to the relative size of other project tasks. Therefore, data conversion activities must be assessed on a project-by-project basis. For projects where the model results in an early finish, conversion activities can be started at a later time and/or the man loading can be reduced. For projects where the model results in a late finish, the estimate for conversion should be reevaluated and possibly lowered (e.g., the estimate for conversion of the Organization database could probably be lowered) and/or the man loading could be increased.

The overall Phase III schedule was then prepared using the detail project schedules and is depicted in Exhibit III-4. The general guidelines used to prepare this schedule were:

- Since site data will be frequently referenced by numerous other databases, including the Events database, the Site database was placed first in the order of development;

- The sequence of the remaining databases is based strictly on priority as determined by *quantitative* factors only. If the sequence is modified based on *qualitative* factors, the schedule would also need to be modified; and

- For the first year of development, only one project at a time was scheduled; for the second year of development, two projects at a time were scheduled; for the third and subsequent years, three projects were scheduled simultaneously. This project loading pattern was selected to allow the NRC to gradually "climb" the

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EXHIBIT III-4 PHASE III DATABASE IMPLEMENTATION SCHEDULE

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!* * * * * * * * * * * * * * * * * * * * * * * *!
!THESE ESTIMATES ARE ONLY AN APPROXIMATION.      !
!VARIATIONS COULD OCCUR FROM PROCUREMENT         !
!DELAYS, TECHNICAL DIFFICULTIES, ISSUE           !
!RESOLUTION OR OTHER FACTORS.  ESTIMATES         !
!COULD BE HIGHER OR LOWER BY 25%.                !
!* * * * * * * * * * * * * * * * * * * * * * * *!
```

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                                     Elapsed Months
                        Development  ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
  Logical Database        Sequence   ! 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 !
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SITE                             1   !+++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
EVENTS                           2   !.  .  .  .  .  ++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
LICENSE                          3   !.  .  .  .  .  .  .  .  .  +++++++++++++++++++++++++++++++++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
INSPECTION                       4   !.  .  .  .  .  .  .  .  .  .  .  .  +++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
ISSUES                           5   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
HARDWARE                         6   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
LEGAL                            7   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
REGULATORY                       8   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
ENFORCEMENT                      9   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
RADIOACTIVE MATERIALS           10   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
FINANCE/ACCOUNTING              11   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++++++++++++++++++++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  !
LICENSING ACTION                12   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
ORGANIZATION                    13   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
PROCUREMENT                     14   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
PERSONNEL                       15   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++++++++++++++++++++++++++.  .  .  .  .  .  .  !
VENDOR                          16   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++.  .  .  .  .  .  .  .  .  .  .  .  !
OPERATOR                        17   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++.  .  .  .  .  .  .  .  .  .  .  !
ALLEGATION                      18   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++.  .  .  .  .  .  .  .  .  !
RESEARCH                        19   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++.  .  .  .  .  .  .  .  !
STATE                           20   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++++++++.  .  .  !
BUILDING/PROPERTY               21   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  ++++++++++++++++++.  .  !
COMMISSION                      22   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  +++++++++.  .  .  .  !
SPECIAL PURPOSE ENT.           TBD   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
GENERAL PURPOSE ENT.           TBD   !.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  !
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learning curve at a faster rate in each year up to a maximum practical level of resource commitment.

Exhibit III-5 shows the rapid rate at which user applications can be developed given the acceleration of the development effort in the second year and beyond.

Based on the overall schedule, we then developed an estimated man loading by month by manpower category including specific NRC Offices, RM/D, and Contractor. This loading chart is illustrated in Exhibit III-6. Detailed loading charts are presented in Appendix C. We used supporting details from the proposed data maintenance responsibility matrix in Appendix D to allocate NRC user manpower to specific NRC offices. Several key points should be noted concerning Appendix D:

- The assignment of proposed data maintenance responsibility to specific NRC Offices is preliminary. These assignments are based on information developed during the preparation of the Enterprise Model, Data Dictionary, and Data Model, and are likely to be modified as a result of further analysis conducted with the implementation of our Phase II (Infrastructure) recommendation (See above for more details);
- Where multiple Offices share specific data responsibility, estimated user man-days were allocated on an equal basis; and
- Where the chart indicates an "any", man-days were allocated on an equal basis to all remaining offices not having a specific assignment.

As discussed in our recommendations, modifications to this schedule may be required as a result of priority changes based on qualitative factors.

C. BUDGET ESTIMATES

To assist the NRC in budgeting for the database projects, we applied some costing assumptions to the man-days and developed an estimate of the cost.

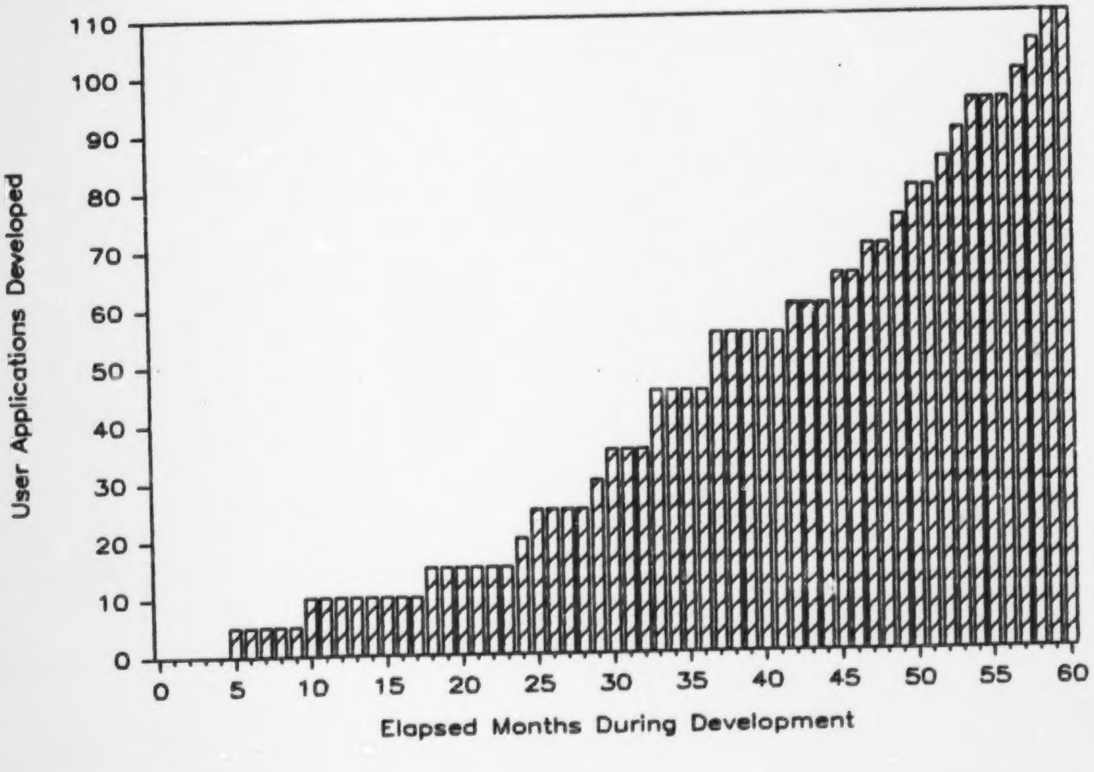
We estimate that contractor billing rates will be:

• Contractor Management	$100/hr
• Analyst	60/hr
• Programmer	35/hr

These estimates are an average of government billing rates for a mix of large and small firms. The actual rates could be higher or lower depending on the contractor selected. We estimate that

EXHIBIT III-5

APPLICATIONS GROW AS DATABASES ARE DEVELOPED



:* *:
:THESE ESTIMATES ARE ONLY AN APPROXIMATION. :
:VARIATIONS COULD OCCUR FROM PROCUREMENT :
:DELAYS, TECHNICAL DIFFICULTIES, ISSUE :
:RESOLUTION OR OTHER FACTORS. ESTIMATES :
:COULD BE HIGHER OR LOWER BY 25%. :
:* *:

EXHIBIT III-6 PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)^

Staffing Level	Project Month 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Contract Management	1.1	1.1	1.1	1.1	1.1	1.6	1.2	1.2	1.2	1.9	1.3	1.3	2.4	2.4	2.4	2.4	1.9	2.1	2.1	2.1	2.1	2.1	1.8	1.5	3.1	3.1	3.1	3.1	3.0	3.0
Contract Analyst	8.0	8.1	9.9	4.0	0.0	7.0	7.0	7.2	4.7	11.7	10.0	10.0	17.0	16.8	13.3	11.8	8.7	10.0	9.0	9.9	10.1	7.4	4.8	8.5	19.2	17.8	18.1	15.4	14.6	17.8
Contract Programmer	0.0	0.2	3.4	1.9	3.0	1.3	0.0	4.4	3.2	.0	0.0	0.0	0.0	0.1	10.3	12.0	6.6	2.1	1.7	1.1	3.8	0.3	0.0	0.0	0.9	1.2	9.9	7.9	3.8	2.1
Total Contractor	9.1	9.4	14.5	7.0	4.1	10.0	8.2	12.7	9.1	13.6	11.3	11.3	19.4	19.4	26.1	26.2	17.2	14.2	12.8	13.1	16.0	9.8	6.6	10.0	23.2	22.1	31.1	26.4	21.4	22.8
NRC RM/D Staff	2.2	2.2	2.2	2.2	2.2	3.3	2.3	2.3	2.3	3.9	2.6	2.6	4.8	4.8	4.8	4.8	3.9	4.3	4.3	4.3	4.3	4.3	3.6	3.0	6.2	6.2	6.2	6.2	6.1	5.9
NRC User	8.0	8.1	8.9	3.3	0.0	7.0	7.0	6.5	3.7	11.1	10.0	10.0	17.0	16.8	12.1	9.8	7.2	9.0	8.0	8.6	8.1	5.4	3.2	8.3	19.2	17.5	16.3	12.7	12.5	16.5
Total NRC	10.2	10.3	11.1	5.5	2.2	10.3	9.3	8.8	6.0	15.0	12.6	12.6	21.8	21.7	17.0	14.6	11.0	13.2	12.3	12.8	12.3	9.6	6.7	11.3	25.5	23.7	22.5	18.9	18.5	22.4
Total Project	19.3	19.7	25.6	12.5	6.3	20.2	17.5	21.5	15.1	28.6	23.8	23.8	41.3	41.0	43.0	40.8	28.3	27.5	25.1	25.9	28.3	19.4	13.3	21.3	48.7	45.8	53.6	45.3	39.9	45.3

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
ACRS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AEOD	0.5	0.5	0.6	0.2	0.0	0.6	0.6	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	1.5	1.5	1.6	1.1	0.7	0.2	0.0
ASLAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	1.0	0.9	0.8	0.9	0.9	0.7
ASLBP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	1.0	0.8	0.8	0.9	0.9	0.7
ADM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.9	1.0	0.7	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1
EDO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ELD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	3.6	2.8	3.5	2.7	1.3	0.7
GC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	1.0	0.8	0.8	0.9	0.9	0.7
IE	0.7	0.7	0.7	0.3	0.0	0.6	0.6	0.5	0.3	0.1	0.0	0.0	5.3	5.3	4.6	2.8	0.9	1.0	0.8	0.9	1.1	0.7	0.2	0.7	0.7	0.8	0.5	0.3	2.2	1.9
IP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	1.3	1.0	1.3	0.9	0.2	0.0
NMSS	2.2	2.2	2.4	0.9	0.0	1.8	1.8	1.6	0.9	1.2	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	1.0	0.9	1.0	0.7	0.4	0.6	8.4
NRR	1.0	1.0	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	1.8	1.6	1.8	1.8	1.2	0.5	2.5	2.5	2.6	1.8	1.0	0.8	0.4
OCM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	1.0	0.8	0.8	0.9	0.9	0.7
OI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OIA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Regions	2.7	2.7	3.0	1.1	0.0	2.3	2.3	2.2	1.2	1.3	0.9	0.9	2.7	2.6	2.1	1.5	0.8	0.4	0.4	0.4	0.3	0.2	0.2	1.7	1.7	1.8	1.2	0.7	2.4	1.9
RES	0.5	0.5	0.6	0.2	0.0	1.8	1.8	1.6	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.7	2.0	1.8	1.9	1.2	0.3	0.0
RM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SDBU/CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SECY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	1.0	0.8	0.8	0.9	0.9	0.7
SP	0.5	0.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC User	8.0	8.1	8.9	3.3	0.0	7.0	7.0	6.5	3.7	11.1	10.0	10.0	17.0	16.8	12.1	9.8	7.2	8.0	7.2	7.7	7.0	4.7	2.9	8.3	19.2	17.5	16.3	12.7	12.5	16.5

^Note: Based on Phase III Database Implementation Schedule. Does not include Special Purpose or General Purpose Entities.

|*************************|
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|COULD BE HIGHER OR LOWER BY 25%.|
|*************************|

EXHIBIT III-6 (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)^

Project Month

Staffing Level	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Contract Management	3.0	2.3	3.2	3.2	3.2	1.8	3.2	3.2	3.2	3.2	3.2	3.9	3.5	2.5	3.4	3.0	3.2	2.3	2.3	3.0	2.4	2.4	1.9	2.8	2.8	2.1	1.4	0.4	0.0	0.0
Contract Analyst	17.0	9.8	22.7	20.2	14.8	8.1	23.0	25.2	21.5	17.9	11.7	17.0	13.6	10.9	16.0	16.6	16.3	11.4	11.1	15.4	9.7	10.1	11.6	15.6	16.5	10.4	5.2	1.3	0.0	0.0
Contract Programmer	2.3	2.0	6.7	3.6	4.4	1.0	0.0	7.6	8.1	5.9	7.1	5.1	3.0	1.5	2.0	8.6	7.2	3.7	1.3	3.0	2.7	0.0	0.7	3.3	8.4	3.2	0.0	0.0	0.0	0.0
Total Contractor	22.3	14.2	32.6	26.9	22.3	10.8	26.2	36.1	32.8	27.1	22.0	25.9	20.1	14.9	21.4	28.3	26.6	17.5	14.7	21.4	14.8	12.4	14.2	21.7	27.7	15.7	6.6	1.7	0.0	0.0
NRC RM/D Staff	5.9	4.7	6.4	6.4	6.4	3.6	6.5	6.5	6.5	6.5	6.5	7.8	7.0	5.1	6.8	6.1	6.3	4.6	4.5	6.1	4.9	4.7	3.9	5.6	5.6	4.2	2.8	0.9	0.0	0.0
NRC User	15.0	8.4	21.7	18.8	12.8	7.4	23.0	23.3	19.8	15.9	9.7	15.0	12.6	9.9	15.0	14.5	14.3	9.2	9.9	13.6	7.5	8.7	11.6	15.2	14.1	8.2	3.8	0.9	0.0	0.0
Total NRC	20.9	13.1	28.1	25.1	19.1	11.0	29.5	29.8	26.3	22.4	16.2	22.7	19.6	14.9	21.8	20.6	20.6	13.9	14.4	19.7	12.4	13.5	15.5	20.7	19.7	12.4	6.5	1.7	0.0	0.0
Total Project	43.2	27.3	60.7	52.1	41.5	21.8	55.7	65.9	59.1	49.5	38.2	48.7	39.7	29.8	43.1	48.9	47.2	31.3	29.2	41.1	27.2	25.9	29.7	42.5	47.3	28.2	13.1	3.5	0.0	0.0

NRC User by Office	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
ACRS	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
AEOD	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
ASLAP	0.4	0.3	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
ASLBP	0.4	0.3	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
ADM	0.0	0.0	1.1	1.1	0.7	0.7	13.2	13.5	9.8	6.6	3.3	5.9	4.9	4.2	3.2	3.2	3.0	2.2	2.1	2.7	1.8	1.1	4.0	3.4	2.8	2.7	1.7	0.5	0.0	0.0
CA	.0	.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
EDO	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
ELD	0.4	0.3	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
GC	0.4	0.3	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
IE	1.9	0.4	1.2	1.0	0.7	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	1.5	1.5	0.8	0.2	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
IP	0.0	0.0	1.2	1.0	0.7	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
NMSS	8.4	5.9	7.0	5.0	3.5	0.9	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	2.7	2.7	1.4	0.3	0.1	1.0	0.8	0.2	.0	.0	.0	.0	0.0	0.0	0.0	0.0
NRR	0.4	0.1	1.2	1.0	0.7	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	2.7	2.7	3.7	2.4	1.6	1.2	0.2	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
OCM	0.4	0.3	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	1.8	1.8	0.2	0.0	0.0	0.0	0.0
OI	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	1.5	1.3	0.2	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
OIA	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	1.5	1.3	0.2	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
PA	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
PE	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
Regions	1.9	0.4	1.2	1.0	0.7	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	2.5	2.3	0.3	0.1	.0	.0	2.6	2.2	1.8	1.8	1.1	0.3	0.0	0.0
RES	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.7	0.7	0.4	0.1	0.1	3.8	3.2	1.1	0.9	0.9	0.8	0.6	0.3	0.1	0.0	0.0
RM	0.0	0.0	5.0	5.0	3.1	3.0	3.2	3.2	3.2	2.9	2.1	2.2	2.0	1.1	1.1	0.8	0.1	0.1	0.1	0.1	.0	.0	.0	.0	.0	.0	0.0	0.0	0.0	0.0
SDBU/CR	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	1.4	1.3	1.1	0.9	0.9	0.8	0.6	0.6	0.5	0.3	0.3	.0	.0	.0	.0	0.0	0.0	0.0	0.0
SECY	0.4	0.3	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	.0	.0	1.8	1.8	0.2	0.0	0.0	0.0	0.0
SP	0.0	0.0	1.2	1.0	0.7	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	.0	5.4	4.2	4.5	4.3	2.6	0.7	0.0	0.0	0.0
Total NRC User	15.0	8.4	21.7	18.8	12.8	7.4	23.0	23.3	19.8	15.9	9.7	15.0	12.6	9.9	15.0	14.5	14.3	9.2	9.9	13.6	7.5	8.7	11.6	15.2	14.1	8.2	3.8	0.9	0.0	0.0

^Note: Based on Phase III Database Implementation Schedule. Does not include Special Purpose or General Purpose Entities.

contractor management will expend 15% of the overall contractor effort. We anticipate that the contractor's expenses will be approximately 5% of total labor, net of hardware and computer time.

Costs for software, hardware and telecommunications have not been included in the development costs. However, we have made an estimate of required computer time charges under a timesharing arrangement. The hourly rate used is for a short term arrangement and, consequently, is probably high. A long term negotiated rate may be significantly lower.

All estimates are presented in current dollars. No adjustment has been made for inflation.

A summary of the cost estimates is shown in Exhibit III-7. Detailed cost estimates for each of the major tasks are provided in Exhibit III-8-13. These estimates are only an approximation of the anticipated total cost to develop each of the databases. Costs could vary as a result of estimating standards, procurement delays, technical difficulties (e.g., computer down-time), issue resolution or other factors. Therefore, these estimates could be higher or lower by as much as 25%.

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EXHIBIT III-7

TOTAL COST ESTIMATE^
(In 1985 Dollars)

Logical Database	Database Development	Database Update Appl. Development	Implementation	Data Conversion	User Applications Development	Subtotal Contractor Labor	Contractor Expenses @ 5%	Total Contractor	Timesharing Costs	Total Development Costs
ALLEGATION	$80,000	$13,000	$22,000	$26,000	$45,000	$186,000	$9,000	$195,000	$151,000	$346,000
BUILDING/PROPERTY	167,000	33,000	50,000	83,000	113,000	446,000	22,000	468,000	358,000	826,000
COMMISSION	71,000	13,000	20,000	6,000	45,000	155,000	8,000	163,000	135,000	298,000
ENFORCEMENT	114,000	20,000	32,000	19,000	68,000	253,000	13,000	266,000	214,000	480,000
EVENTS	147,000	26,000	42,000	121,000	90,000	426,000	21,000	447,000	320,000	767,000
FINANCE/ACCOUNTING	495,000	98,000	149,000	140,000	338,000	1,220,000	61,000	1,281,000	1,025,000	2,306,000
HARDWARE	179,000	33,000	51,000	217,000	113,000	593,000	30,000	623,000	423,000	1,046,000
INSPECTION	149,000	26,000	42,000	115,000	90,000	422,000	21,000	443,000	319,000	762,000
ISSUES	177,000	33,000	51,000	13,000	113,000	387,000	19,000	406,000	338,000	744,000
LEGAL	263,000	52,000	80,000	19,000	180,000	594,000	30,000	624,000	522,000	1,146,000
LICENSE	540,000	98,000	155,000	338,000	338,000	1,469,000	73,000	1,542,000	1,144,000	2,686,000
LICENSING ACTION	105,000	20,000	31,000	32,000	68,000	256,000	13,000	269,000	212,000	481,000
OPERATOR	69,000	13,000	20,000	13,000	45,000	160,000	8,000	168,000	137,000	305,000
ORGANIZATION	68,000	13,000	20,000	230,000	45,000	376,000	19,000	395,000	225,000	620,000
PERSONNEL	401,000	78,000	120,000	134,000	270,000	1,003,000	50,000	1,053,000	833,000	1,886,000
PROCUREMENT	207,000	39,000	61,000	306,000	135,000	748,000	37,000	785,000	520,000	1,305,000
RADIOACTIVE MATERIALS	236,000	39,000	64,000	115,000	135,000	589,000	29,000	618,000	466,000	1,084,000
REGULATORY	141,000	26,000	41,000	19,000	90,000	317,000	16,000	333,000	273,000	606,000
RESEARCH	78,000	13,000	21,000	26,000	45,000	183,000	9,000	192,000	150,000	342,000
SITE	128,000	20,000	33,000	230,000	68,000	479,000	24,000	503,000	312,000	815,000
STATE	165,000	33,000	50,000	45,000	113,000	406,000	20,000	426,000	341,000	767,000
VENDOR	101,000	20,000	30,000	89,000	68,000	308,000	15,000	323,000	231,000	554,000
SPECIAL PURPOSE ENTITIES	254,000	52,000	78,000	32,000	180,000	596,000	30,000	626,000	520,000	1,146,000
GENERAL PURPOSE ENTITIES	183,000	39,000	58,000	166,000	135,000	581,000	29,000	610,000	442,000	1,052,000
Total	$4,518,000	$850,000	$1,321,000	$2,534,000	$2,930,000	$12,153,000	$606,000	$12,759,000	$9,611,000	$22,370,000
Mean	$188,000	$35,000	$55,000	$106,000	$122,000	$506,000	$25,000	$532,000	$400,000	$932,000

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^Note: Amounts presented in this exhibit are rounded to the nearest thousand dollars.

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EXHIBIT III-8 DATABASE DEVELOPMENT COST (In 1985 Dollars)

Logical Database	Contractor Labor (Man-Days) Management (A)	Analyst (B)	Programmer (C)	Contractor Labor (Dollars) Management (D)	Analyst (E)	Programmer (F)	Total (G)
ALLEGATION	22	106	40	$17,490	$50,880	$11,130	$79,500
BUILDING/PROPERTY	46	222	83	36,630	106,560	23,310	166,500
COMMISSION	19	94	35	15,510	45,120	9,870	70,500
ENFORCEMENT	31	152	57	25,080	72,960	15,960	114,000
EVENTS	40	196	74	32,340	94,080	20,580	147,000
FINANCE/ACCOUNTING	136	660	248	108,900	316,800	69,300	495,000
HARDWARE	49	238	89	39,270	114,240	24,990	178,500
INSPECTION	41	198	74	32,670	95,040	20,790	148,500
ISSUES	49	236	89	38,940	113,280	24,780	177,000
LEGAL	72	350	131	57,750	168,000	36,750	262,500
LICENSE	149	720	270	118,800	345,600	75,600	540,000
LICENSING ACTION	29	140	53	23,100	67,200	14,700	105,000
OPERATOR	19	92	35	15,180	44,160	9,660	69,000
ORGANIZATION	19	90	34	14,850	43,200	9,450	67,500
PERSONNEL	110	534	200	88,110	256,320	56,070	400,500
PROCUREMENT	57	276	104	45,540	132,480	28,980	207,000
RADIOACTIVE MATERIALS	65	315	118	51,975	151,200	33,075	236,250
REGULATORY	39	188	71	31,020	90,240	19,740	141,000
RESEARCH	21	104	39	17,160	49,920	10,920	78,000
SITE	35	170	64	28,050	81,600	17,850	127,500
STATE	45	220	83	36,300	105,600	23,100	165,000
VENDOR	28	134	50	22,110	64,320	14,070	100,500
SPECIAL PURPOSE ENT.	70	338	127	55,770	162,240	35,490	253,500
GENERAL PURPOSE ENT.	50	244	92	40,260	117,120	25,620	183,000
Total	1,241	6,017	2,256	$992,805	$2,888,160	$631,785	$4,512,750
Mean	52	251	94	$41,367	$120,340	$26,324	$188,031

Key to Exhibit:

Management	(A) = Management Man-Days (Exhibit II-4)
Analyst	(B) = Analyst Man-Days (Exhibit II-4)
Programmer	(C) = Programmer Man-Days (Exhibit II-4)
Management	(D) = A * $100/hour * 8 hours/day
Analyst	(E) = B * $60/hour * 8 hours/day
Programmer	(F) = C * $35/hour * 8 hours/day
Total	(G) = D + E + F

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EXHIBIT III-9 DATABASE UPDATE APPLICATIONS DEVELOPMENT COST (In 1985 Dollars)

	Contractor Labor (Man-Days)			Contractor Labor (Dollars)			
Logical Database	Management (A)	Analyst (B)	Programmer (C)	Management (D)	Analyst (E)	Programmer (F)	Total (G)
ALLEGATION	4	15	10	$3,000	$7,200	$2,800	$13,000
BUILDING/PROPERTY	9	38	25	7,500	18,000	7,000	32,500
COMMISSION	4	15	10	3,000	7,200	2,800	13,000
ENFORCEMENT	6	23	15	4,500	10,800	4,200	19,500
EVENTS	8	30	20	6,000	14,400	5,600	26,000
FINANCE/ACCOUNTING	28	113	75	22,500	54,000	21,000	97,500
HARDWARE	9	38	25	7,500	18,000	7,000	32,500
INSPECTION	8	30	20	6,000	14,400	5,600	26,000
ISSUES	9	38	25	7,500	18,000	7,000	32,500
LEGAL	15	60	40	12,000	28,800	11,200	52,000
LICENSE	28	113	75	22,500	54,000	21,000	97,500
LICENSING ACTION	6	23	15	4,500	10,800	4,200	19,500
OPERATOR	4	15	10	3,000	7,200	2,800	13,000
ORGANIZATION	4	15	10	3,000	7,200	2,800	13,000
PERSONNEL	23	90	60	18,000	43,200	16,800	78,000
PROCUREMENT	11	45	30	9,000	21,600	8,400	39,000
RADIOACTIVE MATERIALS	11	45	30	9,000	21,600	8,400	39,000
REGULATORY	8	30	20	6,000	14,400	5,600	26,000
RESEARCH	4	15	10	3,000	7,200	2,800	13,000
SITE	6	23	15	4,500	10,800	4,200	19,500
STATE	9	38	25	7,500	18,000	7,000	32,500
VENDOR	6	23	15	4,500	10,800	4,200	19,500
SPECIAL PURPOSE ENT.	15	60	40	12,000	28,800	11,200	52,000
GENERAL PURPOSE ENT.	11	45	30	9,000	21,600	8,400	39,000
Total	244	975	650	$195,000	$468,000	$182,000	$845,000
Mean	10	41	27	$8,125	$19,500	$7,583	$35,208

Key to Exhibit:		
	Management	(A) = Management Man-Days (Exhibit II-5)
	Analyst	(B) = Analyst Man-Days (Exhibit II-5)
	Programmer	(C) = Programmer Man-Days (Exhibit II-5)
	Management	(D) = A * $100/hour * 8 hours/day
	Analyst	(E) = B * $60/hour * 8 hours/day
	Programmer	(F) = C * $35/hour * 8 hours/day
	Total	(G) = D + E + F

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT III-10 IMPLEMENTATION COST
(In 1985 Dollars)

	Contractor Labor (Man-Days)		Contractor Labor (Dollars)		
Logical Database	Management (A)	Analyst (B)	Management (C)	Analyst (D)	Total (E)
ALLEGATION	5	36	$4,308	$17,232	$21,540
BUILDING/PROPERTY	12	83	9,996	39,984	49,980
COMMISSION	5	34	4,092	16,368	20,460
ENFORCEMENT	8	53	6,336	25,344	31,680
EVENTS	10	69	8,328	33,312	41,640
FINANCE/ACCOUNTING	37	249	29,880	119,520	149,400
HARDWARE	13	86	10,284	41,136	51,420
INSPECTION	10	70	8,364	33,456	41,820
ISSUES	13	85	10,248	40,992	51,240
LEGAL	20	133	15,900	63,600	79,500
LICENSE	39	258	30,960	123,840	154,800
LICENSING ACTION	8	51	6,120	24,480	30,600
OPERATOR	5	34	4,056	16,224	20,280
ORGANIZATION	5	34	4,020	16,080	20,100
PERSONNEL	30	200	24,012	96,048	120,060
PROCUREMENT	15	101	12,168	48,672	60,840
RADIOACTIVE MATERIALS	16	107	12,870	51,480	64,350
REGULATORY	10	68	8,184	32,736	40,920
RESEARCH	5	36	4,272	17,088	21,360
SITE	8	56	6,660	26,640	33,300
STATE	12	83	9,960	39,840	49,800
VENDOR	8	50	6,012	24,048	30,060
SPECIAL PURPOSE ENT.	20	131	15,684	62,736	78,420
GENERAL PURPOSE ENT.	14	97	11,592	46,368	57,960
Total	330	2,203	$264,306	$1,057,224	$1,321,530
Mean	14	92	$11,013	$44,051	$55,064

Key to Exhibit:		
	Management	(A) = Management Man-Days (Exhibit II-6)
	Analyst	(B) = Analyst Man-Days (Exhibit II-6)
	Management	(C) = A * $100/hour * 8 hours/day
	Analyst	(D) = B * $60/hour * 8 hours/day
	Total	(E) = C + D

THESE ESTIMATES ARE ONLY AN APPROXIMATION.
VARIATIONS COULD OCCUR FROM PROCUREMENT
DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT III-11 DATA CONVERSION COST

(In 1985 Dollars)

	Contractor Labor (Man-Days)			Contractor Labor (Dollars)			
Logical Database	Management (A)	Analyst (B)	Programmer (C)	Management (D)	Analyst (E)	Programmer (F)	Total (G)
ALLEGATION	7	33	15	$5,700	$15,600	$4,200	$25,500
BUILDING/PROPERTY	23	106	49	18,525	50,700	13,650	82,875
COMMISSION	2	8	4	1,425	3,900	1,050	6,375
ENFORCEMENT	5	24	11	4,275	11,700	3,150	19,125
EVENTS	34	154	71	27,075	74,100	19,950	121,125
FINANCE/ACCOUNTING	39	179	83	31,350	85,800	23,100	140,250
HARDWARE	61	276	128	48,450	132,600	35,700	216,750
INSPECTION	32	146	68	25,650	70,200	18,900	114,750
ISSUES	4	16	8	2,850	7,800	2,100	12,750
LEGAL	5	24	11	4,275	11,700	3,150	19,125
LICENSE	94	431	199	75,525	206,700	55,650	337,875
LICENSING ACTION	9	41	19	7,125	19,500	5,250	31,875
OPERATOR	4	16	8	2,850	7,800	2,100	12,750
ORGANIZATION	64	293	135	51,300	140,400	37,800	229,500
PERSONNEL	37	171	79	29,925	81,900	22,050	133,875
PROCUREMENT	86	390	180	68,400	187,200	50,400	306,000
RADIOACTIVE MATERIALS	32	146	68	25,650	70,200	18,900	114,750
REGULATORY	5	24	11	4,275	11,700	3,150	19,125
RESEARCH	7	33	15	5,700	15,600	4,200	25,500
SITE	64	293	135	51,300	140,400	37,800	229,500
STATE	12	57	26	9,975	27,300	7,350	44,625
VENDOR	25	114	53	19,950	54,600	14,700	89,250
SPECIAL PURPOSE ENT.	9	41	19	7,125	19,500	5,250	31,875
GENERAL PURPOSE ENT.	46	211	98	37,050	101,400	27,300	165,750
Total	707	3,226	1,489	$565,725	$1,548,300	$416,850	$2,530,875
Mean	29	134	62	$23,572	$64,513	$17,369	$105,453

Key to Exhibit:

Management (A) = Management Man-Days (Exhibit II-7)
Analyst (B) = Analyst Man-Days (Exhibit II-7)
Programmer (C) = Programmer Man-Days (Exhibit II-7)
Management (D) = A * $100/hour * 8 hours/day
Analyst (E) = B * $60/hour * 8 hours/day
Programmer (F) = C * $35/hour * 8 hours/day
Total (G) = D + E + F

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT III-12 USER APPLICATIONS DEVELOPMENT COST (In 1985 Dollars)

	Contractor Labor (Man-Days)		Contractor Labor (Dollars)		
Logical Database	Management (A)	Analyst (B)	Management (C)	Analyst (D)	Total (E)
ALLEGATION	11	75	$9,000	$36,000	$45,000
BUILDING/PROPERTY	28	188	22,500	90,000	112,500
COMMISSION	11	75	9,000	36,000	45,000
ENFORCEMENT	17	113	13,500	54,000	67,500
EVENTS	23	150	18,000	72,000	90,000
FINANCE/ACCOUNTING	84	563	67,500	270,000	337,500
HARDWARE	28	188	22,500	90,000	112,500
INSPECTION	23	150	18,000	72,000	90,000
ISSUES	28	188	22,500	90,000	112,500
LEGAL	45	300	36,000	144,000	180,000
LICENSE	84	563	67,500	270,000	337,500
LICENSING ACTION	17	113	13,500	54,000	67,500
OPERATOR	11	75	9,000	36,000	45,000
ORGANIZATION	11	75	9,000	36,000	45,000
PERSONNEL	68	450	54,000	216,000	270,000
PROCUREMENT	34	225	27,000	108,000	135,000
RADIOACTIVE MATERIALS	34	225	27,000	108,000	135,000
REGULATORY	23	150	18,000	72,000	90,000
RESEARCH	11	75	9,000	36,000	45,000
SITE	17	113	13,500	54,000	67,500
STATE	28	188	22,500	90,000	112,500
VENDOR	17	113	13,500	54,000	67,500
SPECIAL PURPOSE ENT.	45	300	36,000	144,000	180,000
GENERAL PURPOSE ENT.	34	225	27,000	108,000	135,000
Total	731	4,875	$585,000	$2,340,000	$2,925,000
Mean	30	203	$24,375	$97,500	$121,875

Key to Exhibit:		
	Management	(A) = Management Man-Days (Exhibit II-8)
	Analyst	(B) = Analyst Man-Days (Exhibit II-8)
	Management	(C) = A * $100/hour * 8 hours/day
	Analyst	(D) = B * $60/hour * 8 hours/day
	Total	(E) = C + D

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

EXHIBIT III-13 ESTIMATED TIMESHARING COSTS
(In 1985 Dollars)

Logical Database	Database Physical Development Man-Days (H)	Database Update Appl. Physical Development Man-Days (P)	Database Implementation Man-Days (V)	Database Update Appl. Implementation Man-Days (W)	Data Conversion Physical Development Man-Days (AF)	User Applications Development Man-Days (AL)	Total Man-Days (AP)	Estimated Timesharing Costs (AQ)
ALLEGATION	80	10	16	20	15	75	215	$150,780
BUILDING/PROPERTY	167	25	33	50	49	188	511	357,735
COMMISSION	71	10	14	20	4	75	193	135,345
ENFORCEMENT	114	15	23	30	11	113	306	213,885
EVENTS	147	20	29	40	71	150	458	320,355
FINANCE/ACCOUNTING	495	75	99	150	83	563	1,464	1,024,800
HARDWARE	179	25	36	50	128	188	604	422,940
INSPECTION	149	20	30	40	68	150	456	318,990
ISSUES	177	25	35	50	8	188	482	337,680
LEGAL	263	40	53	80	11	300	746	522,375
.ICENSE	540	75	108	150	199	563	1,634	1,143,975
.ICENSING ACTION	105	15	21	30	19	113	302	211,575
)PERATOR	69	10	14	20	8	75	195	136,710
)RGANIZATION	68	10	14	20	135	75	321	224,700
PERSONNEL	401	60	80	120	79	450	1,189	832,545
PROCUREMENT	207	30	41	60	180	225	743	520,380
RADIOACTIVE MATERIALS	236	30	47	60	68	225	666	466,200
REGULATORY	141	20	28	40	11	150	390	273,315
RESEARCH	78	10	16	20	15	75	214	149,520
SITE	128	15	26	30	135	113	446	311,850
STATE	165	25	33	50	26	188	487	340,725
VENDOR	101	15	20	30	53	113	331	231,420
SPECIAL PURPOSE ENT.	254	40	51	80	19	300	743	520,065
GENERAL PURPOSE ENT.	183	30	37	60	98	225	632	442,470
Total	4,513	650	903	1,300	1,489	4,875	13,729	$9,610,335
Mean	188	27	38	54	62	203	572	$400,431

Key to Exhibit:		
	Columns (H) through (AL)	See Exhibits II-4, II-5, II-6, II-7 & II-8
	Total Man-Days	(AP) = H + P + V + W + AF + AL
	Estimated Timesharing Costs	(AQ) = AP * $100/hour * 7 hours/day Usage

GLOSSARY OF TERMS

ATTRIBUTE	The smallest unit of data that is meaningful in describing information; synonymous with data element.
CONVERSION	The process through which data stored in unlike structures and formats or on unlike media are converted to a common format and media.
DATA ENTITY	Anything about which data can be stored such as a person, place or thing.
DATABASE	A collection of interrelated data stored together with controlled redundancy to serve one or more applications. The data are stored so that they are independent of the programs which use data.
DATABASE MANAGEMENT SYSTEM (DBMS)	The collection of system software required for using, managing and controlling a database.
DATA MODEL	A precise detailed database design expressing the interrelationship of data entities created completely independent of hardware or software considerations; the logical data structure of an organization.
FOURTH GENERATION LANGUAGE	Software development tools used primarily in the creation of user applications. Fourth generation languages are generally much easier to use than traditional third generation languages such as COBOL or PL/I.

LOGICAL DATABASE	A database as perceived by its users. The logical structure may differ from the physical structure and the way the data are stored and retrieved.
PROTOTYPING	A selective process for refining conversion, development, and implementation methodologies using automated tools before beginning full-scale production.
TIMESHARING	A method of procuring processing time on a computer that is owned and maintained by an outside source.
UPDATE APPLICATION	A program or system of programs designed to add, change or delete data in a database.
USER APPLICATION	A program or system of programs to extract, accumulate or manipulate data in a database without affecting the data itself.

DESCRIPTION OF APPLICATION SUBJECT AREAS

APPLICATION SUBJECT AREA	DESCRIPTION
Allegation Tracking	Tracks and monitors the receipt, disposition, and status of allegations.
Enforcement Action Tracking	Maintains and monitors data concerning inspections, investigations, and associated enforcement actions. Provides current and historical data regarding enforcement actions including escalated enforcement actions.
Events Reporting & Analysis	Tracks and analyzes events.
Exposure Monitoring	Collects and maintains data about personnel located or employed at nuclear sites.
Financial Administration	Records, maintains, and reports General Ledger transactions. Provides budget planning, variance analysis, and reporting.
General Purpose	Collects, maintains, and reports current and historical data of a generalized nature.
Hearing Status	Tracks and maintains data concerning hearing schedules, status, and disposition.
Inspection Control	Provides an overview on the progress of each inspection. Analyzes data for each inspection module.
Inventory Management	Maintains, monitors, and analyzes NRC property and equipment.
Investigation Reporting	Reports data regarding all investigative actions, case status, and expended man-hours.
Issues (Safety Related)	Inventories and analyzes issues requiring responses from the NRC or a licensee. Records and maintains data concerning issue commitments made by the NRC.

APPLICATION SUBJECT AREA	DESCRIPTION
Licensee Performance Evaluation	Maintains current and historical data regarding enforcement actions, events, or other pertinent data used to evaluate a licensee's operational performance.
Manpower Reporting	Monitors manpower assignments to various NRC projects.
Nuclear Facilities Status Report	Tracks and analyzes the status of case work relating to facilities licensing reviews.
Nuclear Facilities Licensing	Maintains and analyzes fuel facilities and materials licensing case work including export/import requests.
Nuclear Incident Estimating	Provides data concerning the magnitude and dispersion of releases including their estimated radiological impact.
Nuclear Material Tracking	Maintains and monitors data regarding the location, type, status, and disposition of nuclear material including import/export.
Operator Licensing	Tracks the logging of operator applications and licenses. Records and maintains data on operator applicants and license renewals.
Payroll	Maintains and generates employee payroll information, annual leave, and retirement benefits.
Personnel Management	Tracks and analyzes personnel actions, qualifications, training, and requirements.
Personnel Security	Monitors security clearance by NRC employee. Records and maintains data concerning badges, cards, and keys issued.
Plant Status Reporting	Tracks and analyzes data concerning nuclear power plants including operations, daily status, and significant events. Analyzes the status of plants under construction including anticipated fuel loading dates.
Policy Guidance	Tracks policy and planning guidance at the Commission level.

APPLICATION SUBJECT AREA	DESCRIPTION
Procurement Control	Records, maintains, and controls procurement activities. Monitors and analyzes procurement actions, requests, and NRC providers/suppliers.
Project Control	Monitors the status and responsibility of work assignments, as well as manpower requirements.
Reactor Construction Report	Tracks and permits analysis of reactor unit construction and planned fuel loading dates.
Reactor Licensing	Maintains and analyzes reactor licensing from application to decision including import/export requests. Projects manpower requirements for licensing actions.
Regulatory Reporting	Provides data for scheduling, monitoring, and controlling the development of regulations, guides, and standards.
Research (Project Control)	Tracks and maintains the status of research project data from inception to completion including, objective, scope, personnel, funding, and schedule dates.
Special Purpose	Collects, maintains, and reports current and historical data of a specialized nature.
Staffing	Monitors and projects manpower availability for NRC organizations.
Systems/Component Analysis	Tracks and analyzes reported failures, defects, or non-compliance of components, systems, or packages. Analysis includes performance during events and allows tracking by vendor.
Travel Control	Monitors and analyzes travel and travel related expenditures.

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COULD BE HIGHER OR LOWER BY 25%.

APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
ALLEGATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.0	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	5.5	5.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	6.7	9.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.9	1.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	5.5	4.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	7.4	6.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	14.1	15.8	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	1.37	1.17	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	1.43	1.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	1.43	1.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	5.5	4.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
BUILDING/PROPERTY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.0	1.0	1.0	1.0	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	7.0	5.9	5.3	5.8	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.8	3.3	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	8.0	7.6	9.6	10.0	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.0	2.0	2.0	2.0	2.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	7.0	5.9	4.9	4.8	2.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	9.0	7.9	6.9	6.9	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	17.0	15.5	16.5	16.9	9.9	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	3.97	3.32	2.77	2.74	1.67	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	2.57	2.15	1.79	1.77	1.08	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.47	0.39	0.33	0.32	0.20	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	7.0	5.9	4.9	4.8	2.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
COMMISSION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	4.4	5.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	5.4	8.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.7	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	4.4	4.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	6.1	6.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	11.5	14.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	1.82	1.84	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	1.82	1.84	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	4.4	4.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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:* *:

APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
ENFORCEMENT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	5.1	4.8	5.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.4	1.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	6.4	6.7	8.7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.8	1.8	1.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	5.1	4.5	4.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	6.9	6.3	6.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	13.3	13.0	14.9	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	2.13	1.88	1.86	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.43	0.38	0.37	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.43	0.38	0.37	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	2.13	1.88	1.86	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	5.1	4.5	4.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

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Project	Project Month																	
EVENTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.2	1.2	1.2	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	7.0	7.0	7.2	4.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	4.4	3.2	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	8.2	8.2	12.7	9.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.3	2.3	2.3	2.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	7.0	7.0	6.5	3.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	9.3	9.3	8.8	6.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	17.5	17.5	21.5	15.1	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.58	0.58	0.54	0.31	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.58	0.58	0.54	0.31	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	1.75	1.75	1.62	0.93	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	2.33	2.33	2.16	1.23	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	1.75	1.75	1.62	0.93	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	7.0	7.0	6.5	3.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
FINANCE/ACCOUNTING	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.8	0.0	0.0	0.0	0.0
Contractor Analyst	10.0	10.0	6.2	6.0	6.0	6.9	7.0	6.3	5.0	5.0	4.6	3.0	3.0	2.1	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	2.8	1.0	0.0	5.6	5.8	0.7	2.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	11.1	11.1	10.1	8.1	7.1	13.7	13.9	8.1	8.1	6.8	5.7	4.1	4.1	2.8	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.5	0.0	0.0	0.0	0.0
NRC User	10.0	10.0	6.2	6.0	6.0	6.0	6.0	5.3	4.0	4.0	3.6	2.0	2.0	1.4	0.0	0.0	0.0	0.0
Total NRC	12.2	12.2	8.4	8.2	8.2	8.2	8.2	7.5	6.2	6.2	5.8	4.2	4.2	2.9	0.0	0.0	0.0	0.0
Total Project	23.3	23.3	18.6	16.2	15.3	21.8	22.0	15.6	14.3	13.0	11.5	8.3	8.3	5.7	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
AEOD	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
ASLAP	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
ASLBP	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
ADM	1.13	1.13	0.70	0.68	0.68	0.68	0.68	0.60	0.45	0.45	0.41	0.23	0.23	0.16	0.00	0.00	0.00	0.00
CA	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
EDO	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
ELD	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
GC	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
IE	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
IP	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
NMSS	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
NRR	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
OCM	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
OI	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
OIA	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
PA	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
PE	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
Regions	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
RES	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
RM	5.04	5.04	3.14	3.03	3.03	3.03	3.03	2.68	2.02	2.02	1.81	1.01	1.01	0.70	0.00	0.00	0.00	0.00
SDBU/CR	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
SECY	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
SP	0.17	0.17	0.11	0.10	0.10	0.10	0.10	0.09	0.07	0.07	0.06	0.03	0.03	0.02	0.00	0.00	0.00	0.00
Total NRC User	10.0	10.0	6.2	6.0	6.0	6.0	6.0	5.3	4.0	4.0	3.6	2.0	2.0	1.4	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
HARDWARE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.3	1.3	1.3	1.3	1.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	8.0	8.0	8.8	6.9	4.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	1.0	6.3	3.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	9.3	9.3	11.1	14.6	9.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.6	2.6	2.6	2.6	2.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	8.0	8.0	8.5	5.9	3.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	10.6	10.6	11.1	8.5	6.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	19.9	19.9	22.3	23.1	15.1	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	1.52	1.52	1.62	1.12	0.65	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.72	0.72	0.77	0.53	0.31	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.93	0.93	0.99	0.69	0.40	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	2.45	2.45	2.61	1.81	1.05	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	1.65	1.65	1.76	1.22	0.71	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.72	0.72	0.77	0.53	0.31	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	8.0	8.0	8.5	5.9	3.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.

APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
INSPECTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.1	1.1	1.1	1.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	7.0	7.0	6.8	4.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	4.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	8.1	8.1	12.4	8.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.3	2.3	2.3	2.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	7.0	7.0	6.1	3.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	9.3	9.3	8.4	6.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	17.4	17.4	20.8	14.9	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	5.25	5.25	4.58	2.82	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	1.75	1.75	1.53	0.94	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	7.0	7.0	6.1	3.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
ISSUES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.8	0.8	0.8	0.8	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	4.7	4.0	4.9	6.2	4.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.3	0.0	1.1	3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	5.9	4.8	6.8	10.8	5.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.7	1.7	1.7	1.7	1.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	4.7	4.0	4.6	5.2	3.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	6.4	5.7	6.3	6.8	5.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	12.4	10.5	13.1	17.6	10.6	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.95	0.80	0.91	1.03	0.67	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.97	0.82	0.93	1.05	0.69	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	1.45	1.22	1.39	1.57	1.02	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	3.8	3.2	3.7	4.1	2.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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!VARIATIONS COULD OCCUR FROM PROCUREMENT          !
!DELAYS, TECHNICAL DIFFICULTIES, ISSUE            !
!RESOLUTION OR OTHER FACTORS.  ESTIMATES          !
!COULD BE HIGHER OR LOWER BY 25%.                 !
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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
LEGAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	6.1	5.0	5.0	6.6	6.2	5.0	3.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.4	0.1	0.0	3.9	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	7.5	6.0	5.9	11.4	10.1	7.0	4.5	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	6.1	5.0	5.0	5.8	5.2	4.0	2.5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	8.0	6.9	6.9	7.6	7.1	5.9	4.4	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	15.5	12.9	12.8	19.0	17.1	12.8	8.9	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	1.00	0.82	0.82	0.95	0.85	0.65	0.42	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	1.00	0.82	0.82	0.95	0.85	0.65	0.42	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.11	0.09	0.09	0.10	0.09	0.07	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	1.00	0.82	0.82	0.95	0.85	0.65	0.42	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	1.00	0.82	0.82	0.95	0.85	0.65	0.42	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	1.00	0.82	0.82	0.95	0.85	0.65	0.42	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	1.00	0.82	0.82	0.95	0.85	0.65	0.42	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	6.1	5.0	5.0	5.8	5.2	4.0	2.5	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

Project	Project Month 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
LICENSE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.2	0.0	0.0	0.0
Contractor Analyst	10.0	10.0	10.0	10.0	9.8	6.5	7.0	7.0	5.2	5.0	5.0	3.9	3.0	3.0	0.5	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	0.0	0.0	0.1	5.9	9.0	6.6	1.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	11.3	11.3	11.3	11.3	11.2	13.6	17.3	14.8	8.3	8.0	6.3	5.2	4.3	4.3	0.7	0.0	0.0	0.0
NRC RM/D Staff	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0.4	0.0	0.0	0.0
NRC User	10.0	10.0	10.0	10.0	9.8	6.0	6.0	6.0	4.2	4.0	4.0	2.9	2.0	2.0	0.3	0.0	0.0	0.0
Total NRC	12.6	12.6	12.6	12.6	12.4	8.6	8.6	8.6	6.8	6.6	6.6	5.5	4.6	4.6	0.7	0.0	0.0	0.0
Total Project	23.8	23.8	23.8	23.8	23.6	22.2	25.8	23.4	15.1	14.5	12.8	10.7	8.8	8.8	1.4	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
ASLBP	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
GC	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
NMSS	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
NRR	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
OCM	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
SP	0.91	0.91	0.91	0.91	0.89	0.55	0.55	0.55	0.38	0.36	0.36	0.27	0.18	0.18	0.03	0.00	0.00	0.00
Total NRC User	10.0	10.0	10.0	10.0	9.8	6.0	6.0	6.0	4.2	4.0	4.0	2.9	2.0	2.0	0.3	0.0	0.0	0.0

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APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

Project	Project Month																	
LICENSING ACTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	5.9	5.2	4.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.1	2.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	6.9	8.5	7.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.9	1.9	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	5.9	4.8	3.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	7.7	6.7	5.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	14.6	15.1	13.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.98	0.80	0.64	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.98	0.80	0.64	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.98	0.80	0.64	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.98	0.80	0.64	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.98	0.80	0.64	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.98	0.80	0.64	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	5.9	4.8	3.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

Project	Project Month																	
OPERATOR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	4.7	5.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	6.0	8.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.8	1.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	4.7	4.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	6.5	6.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	12.5	14.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	2.37	2.18	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	2.37	2.18	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	4.7	4.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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:COULD BE HIGHER OR LOWER BY 25%.           :
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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
ORGANIZATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.9	0.9	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	8.0	9.3	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	2.0	0.0	1.9	3.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	8.9	12.2	5.4	4.2	3.9	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.7	1.7	1.7	1.7	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	8.0	8.3	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	9.7	10.0	6.1	3.2	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	18.6	22.2	11.5	7.4	5.6	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	8.00	8.30	4.37	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	8.0	8.3	4.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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:* *:

APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

Project	Project Month																	
PERSONNEL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	9.0	9.0	7.9	6.0	6.9	7.0	5.3	5.0	4.4	3.0	3.0	.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	0.8	2.0	6.3	3.8	1.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	10.1	10.1	9.7	9.1	14.3	11.9	8.1	7.2	5.5	4.1	4.1	.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	9.0	9.0	7.9	6.0	6.0	6.0	4.3	4.0	3.4	2.0	2.0	.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	11.2	11.2	10.1	8.2	8.2	8.2	6.6	6.2	5.6	4.2	4.2	.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	21.4	21.4	19.8	17.4	22.5	20.2	14.7	13.5	11.2	8.4	8.4	.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	4.50	4.50	3.93	3.00	3.00	3.00	2.17	2.00	1.70	1.00	1.00	.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	1.27	1.27	1.11	0.85	0.85	0.85	0.61	0.57	0.48	0.28	0.28	.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.15	0.15	0.13	0.10	0.10	0.10	0.07	0.07	0.06	0.03	0.03	.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	9.0	9.0	7.9	6.0	6.0	6.0	4.3	4.0	3.4	2.0	2.0	.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

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Project	Project Month																	
PROCUREMENT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	9.0	9.0	9.9	10.2	6.7	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	2.3	3.3	2.1	3.0	3.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	10.3	10.3	13.5	14.8	10.1	7.3	4.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	9.0	9.0	9.5	9.2	5.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	11.6	11.6	12.0	11.7	8.3	4.6	2.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	21.9	21.9	25.5	26.5	18.3	11.8	6.9	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	4.50	4.50	4.73	4.58	2.85	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.20	0.20	0.21	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	9.0	9.0	9.5	9.2	5.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

:THESE ESTIMATES ARE ONLY AN APPROXIMATION.
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:DELAYS, TECHNICAL DIFFICULTIES, ISSUE
:RESOLUTION OR OTHER FACTORS. ESTIMATES
:COULD BE HIGHER OR LOWER BY 25%.

Project	Project Month																	
RADIOACTIVE MATERIAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.1	1.1	1.1	1.1	1.1	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	8.0	8.0	5.9	6.9	5.0	3.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	2.0	6.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	9.1	9.1	9.1	14.7	7.4	4.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.3	2.3	2.3	2.3	2.3	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	8.0	8.0	5.8	5.9	4.0	2.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	10.3	10.3	8.1	8.2	6.3	5.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	19.4	19.4	17.2	22.8	13.7	9.9	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	8.00	8.00	5.83	5.87	4.00	2.74	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	8.0	8.0	5.8	5.9	4.0	2.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

Project	Project Month																	
REGULATORY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.9	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	5.1	4.0	6.2	4.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.4	0.1	3.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	6.4	4.9	10.6	6.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.7	1.7	1.7	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	5.1	4.0	5.4	3.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	6.9	5.7	7.1	5.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	13.3	10.7	17.7	11.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	2.56	2.00	2.69	1.73	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	1.28	1.00	1.35	0.87	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	1.28	1.00	1.35	0.87	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	5.1	4.0	5.4	3.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

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Project	Project Month																	
RESEARCH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	5.5	5.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	6.7	9.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.9	1.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	5.5	4.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	7.4	6.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	14.1	15.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.92	0.78	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.92	0.78	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	3.66	3.13	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	5.5	4.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
SITE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.1	1.1	1.1	1.1	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	8.0	8.1	9.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.2	3.4	1.9	3.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	9.1	9.4	14.5	7.0	4.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.2	2.2	2.2	2.2	2.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	8.0	8.1	8.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	10.2	10.3	11.1	5.5	2.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	19.3	19.7	25.6	12.5	6.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.50	0.51	0.56	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.67	0.67	0.75	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	2.17	2.19	2.42	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	1.00	1.01	1.12	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	2.67	2.70	2.98	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.50	0.51	0.56	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.50	0.51	0.56	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	8.0	8.1	8.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
STATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.9	0.9	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	6.0	4.6	5.4	5.8	3.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.7	2.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	6.9	6.2	8.7	9.8	4.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.8	1.8	1.8	1.8	1.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	6.0	4.6	4.9	4.8	2.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	7.8	6.5	6.8	6.6	4.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	14.8	12.7	15.5	16.4	9.5	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.60	0.46	0.49	0.48	0.29	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	5.40	4.16	4.44	4.31	2.59	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	6.0	4.6	4.9	4.8	2.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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:* *:

APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

Project	Project Month																	
VENDOR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.2	1.2	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	7.0	7.6	4.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	2.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	8.2	11.1	8.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.3	2.3	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	7.0	7.2	3.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	9.3	9.5	5.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	17.5	20.6	14.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	1.36	1.39	0.68	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	2.53	2.58	1.27	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	2.53	2.58	1.27	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.58	0.60	0.29	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	7.0	7.2	3.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

THESE ESTIMATES ARE ONLY AN APPROXIMATION.
VARIATIONS COULD OCCUR FROM PROCUREMENT
DELAYS, TECHNICAL DIFFICULTIES, ISSUE
RESOLUTION OR OTHER FACTORS. ESTIMATES
COULD BE HIGHER OR LOWER BY 25%.

APPENDIX C PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)
(cont'd)

Project	Project Month																	
SPECIAL PURPOSE ENTITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	6.9	5.0	5.0	6.8	6.0	5.0	3.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.1	0.8	0.0	4.4	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	7.9	6.7	5.9	12.2	9.3	6.8	4.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	6.9	5.0	5.0	5.9	5.0	4.0	2.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	8.8	6.9	6.9	7.8	6.9	5.9	4.1	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	16.6	13.6	12.8	19.9	16.2	12.7	8.3	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	2.58	1.88	1.88	2.21	1.87	1.50	0.84	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.90	0.65	0.65	0.77	0.65	0.52	0.29	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.54	0.39	0.39	0.46	0.39	0.31	0.18	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.25	0.18	0.18	0.22	0.18	0.15	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.32	0.24	0.24	0.28	0.23	0.19	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.54	0.39	0.39	0.46	0.39	0.31	0.18	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.90	0.65	0.65	0.77	0.65	0.52	0.29	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.25	0.18	0.18	0.22	0.18	0.15	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	6.9	5.0	5.0	5.9	5.0	4.0	2.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

THESE ESTIMATES ARE ONLY AN APPROXIMATION. VARIATIONS COULD OCCUR FROM PROCUREMENT DELAYS, TECHNICAL DIFFICULTIES, ISSUE RESOLUTION OR OTHER FACTORS. ESTIMATES COULD BE HIGHER OR LOWER BY 25%.

APPENDIX C (cont'd) PROJECT MAN LOADING BY PROJECT MONTH (Amounts in FTEs)

Project	Project Month																	
GENERAL PURPOSE ENTITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Contractor Management	1.1	1.1	1.1	1.1	1.1	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Analyst	8.0	8.0	6.3	6.7	5.0	3.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Programmer	0.0	0.0	2.5	6.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Contractor	9.1	9.1	9.9	14.4	7.2	4.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC RM/D Staff	2.3	2.3	2.3	2.3	2.3	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NRC User	8.0	8.0	6.1	5.7	4.0	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total NRC	10.3	10.3	6.4	8.0	6.3	4.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	19.4	19.4	18.3	22.4	13.5	8.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NRC User by Office	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ACRS	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AEOD	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLAP	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASLBP	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADM	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CA	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EDO	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELD	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GC	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IE	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IP	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NMSS	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRR	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCM	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OI	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OIA	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PE	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Regions	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RM	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDBU/CR	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECY	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SP	0.33	0.33	0.25	0.24	0.17	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total NRC User	8.0	8.0	6.1	5.7	4.0	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX D

DATA RESPONSIBILITY MATRIX

Key to Exhibit:

C = Create	The office(s) responsible for the entry or creation of master records in the database. All offices with the responsibility for creating a record also have the ability to update a record.
U = Update	The office(s) responsible for updating an existing record in the database.
R = Reporting/Access	For offices having a requirement for data concerning an entity, refer to the Enterprise Model. The ability to report or access data may be restricted because the data is stand-alone, sensitive or classified as defined in the Data Dictionary.

APPENDIX D (cont'd)

PROPOSED ENTITY MAINTENANCE RESPONSIBILITY MATRIX*

Logical Database	ANY	ACRS	AEOD	ASLAP	ASLBP	ADM	CA	EDO	ELD	GC	IE	IP	NMSS	NRR	OCM	OI	OIA	PA	PE	Regions	RES	RM	SDBU/CR	SECY	SP
Allegation																									
Allegation	.U													.CU											
Investigation(case)																.CU	.CU								
Building/Property																									
Building(NRC)						.CU																			
Equipment(NRC technical)						.CU														.U	.U				
Physical Security(NRC)						.CU														.CU					
Property(NRC)						.CU														.CU					
Visitor						.CU														.CU					
Commission																									
Commission Order															.CU									.CU	
Commission Paper	.U														.CU									.CU	
Enforcement																									
Deviation											.CU									.CU					
Enforcement Action											.CU		.CU	.CU						.CU					
Violation											.CU									.CU					
Events																									
Event			.CU								.CU									.CU					
Exposure																					.CU				
Release													.CU							.CU					
Threat													.CU							.CU					
Finance/Accounting																									
Budget	.CU																					.CU			
Decision Unit	.U																					.CU			
G/L Account																						.CU			
Planned Accomplishment	.U																					.CU			
Travel	.CU					.CU																			
Hardware																									
Component			.CU								.U			.U						.U	.U				
Deficiency											.CU		.CU	.CU						.CU					
Structure			.CU											.U											
System			.CU											.U						.U	.U				
Test													.CU	.CU						.CU					
Inspection																									
Inspection											.U									.CU					
Inspection Module											.CU														
Inspection Program											.CU														
Outstanding Item(Inspection)											.U									.CU					
Issues																									
Backfit Issue								.CU						.U											
Bulletin											.CU														
Generic Letter														.CU											
Generic/US Issue	.U							.CU																	
Issue(General)	.CU																								

*The assignment of proposed data maintenance responsibility to specific NRC Offices is preliminary. These assignments are based on information developed during the preparation of the Enterprise Model, Data Dictionary, and Data Model, and are likely to be modified as a result of further analysis conducted with the implementation of our Phase II (Infrastructure) recommendation.

APPENDIX D (cont'd)

PROPOSED ENTITY MAINTENANCE RESPONSIBILITY MATRIX*

Logical Database	ANY	ACRS	AEOD	ASLAP	ASLBP	ADM	CA	EDO	ELD	GC	IE	IP	NMSS	NRR	OCM	OI	OIA	PA	PE	Regions	RES	RM	SDBU/CR	SECY	SP
Legal																									
Appeal	.	.	.	.U	.U	.	.	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
Case(Legal)	.	.	.	.U	.U	.	.	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
Decision	.	.	.	.U	.U	.	.	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
Hearing	.	.	.	.U	.U	.	.CU	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
Intervenor	.	.	.	.U	.U	.	.	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
Petition	.	.	.	.U	.U	.	.	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
Pleading	.	.	.	.U	.U	.	.	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
Witness	.	.	.	.U	.U	.	.	.	.CU	.U	.	.	.	.	.U	.	.	.	.	.	.	.	.	.CU	.
License																									
License	.	.	.	.U	.U	.	.	.	.U	.U	.	.CU	.CU	.CU	.U	.	.	.	.	.CU	.	.	.	.CU	.CU
License Applicant	.	.	.	.U	.U	.	.	.	.U	.U	.	.CU	.CU	.CU	.U	.	.	.	.	.CU	.	.	.	.CU	.CU
License Application	.	.	.	.U	.U	.	.	.	.U	.U	.	.CU	.CU	.CU	.U	.	.	.	.	.CU	.	.	.	.CU	.CU
Licensee	.	.	.	.U	.U	.	.	.	.U	.U	.	.CU	.CU	.CU	.U	.	.	.	.	.CU	.	.	.	.CU	.CU
Tech Spec/License Condition	.	.	.	.U	.U	.	.	.	.U	.U	.	.CU	.CU	.CU	.U	.	.	.	.	.CU	.	.	.	.CU	.CU
Licensing Action																									
Licensee Commitment	.	.	.	.	.	.	.	.	.	.	.CU	.CU	.CU	.CU	.	.	.	.	.	.CU	.	.	.	.	.CU
Licensing Action	.	.	.	.	.	.	.	.	.	.	.CU	.CU	.CU	.CU	.	.	.	.	.	.CU	.	.	.	.	.CU
Open Item(Licensing)	.	.	.	.	.	.	.	.	.	.	.CU	.CU	.CU	.CU	.	.	.	.	.	.CU	.	.	.	.	.CU
Operator																									
Examination(Operator)	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.U	.	.	.	.	.
Reactor Operator	.	.	.	.	.	.	.	.	.	.	.	.	.	.U	.	.	.	.	.	.CU	.	.	.	.	.
Organization																									
Organization	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Position	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Personnel																									
Employee(NRC)	.U	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Grievance	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.
Personnel Action	.U	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Recruit/Applicant	.U	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Procurement																									
Contractor/Provider(NRC)	.CU	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Provision Agreement	.CU	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Provision Request	.CU	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Radioactive Materials																									
Fuel Assembly	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.
Package	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.
Radioactive Material(Accountability)	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.
Shipment	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.
Regulatory																									
Guide/Standard(NRC)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.
International Agreement	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.
Regulation	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Statute	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

*The assignment of proposed data maintenance responsibility to specific NRC Offices is preliminary. These assignments are *based on information developed during the preparation of the Enterprise Model, Data Dictionary, and Data Model, and are *likely to be modified as a result of further analysis conducted with the implementation of our Phase II (Infrastructure) *recommendation.

PROPOSED ENTITY MAINTENANCE RESPONSIBILITY MATRIX*

Logical Database	ANY	ACRS	AEOD	ASLAP	ASLBP	ADM	CA	EDO	ELD	GC	IE	IP	NMSS	NRR	OCM	OI	OIA	PA	PE	Regions	RES	RM	SDBU/CR	SECY	SP
Research																									
Interagency Agreement(Technical)	.	.	.	.	.	.CU	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.CU	.	.	.	.
Research Program	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.
Site																									
Facility(Non-reactor)	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.U	.	.	.	.	.
Licensee Plan	.	.	.	.	.	.	.	.	.	.	.CU	.	.CU	.	.	.	.	.	.	.U	.	.	.	.	.
Site	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.CU	.	.	.	.	.	.U	.	.	.	.	.CU
Unit	.	.	.U	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.U	.U	.	.	.	.
State																									
Demographics	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.U	.	.	.	.CU
Economic Information	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU
Power Utility	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU
Public Utility Commission	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU
State	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU
Vendor																									
Design	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.CU	.	.	.	.	.	.	.	.	.	.	.
Topical Report	.	.	.	.	.	.	.	.	.	.	.CU	.	.CU	.CU	.	.	.	.	.	.	.CU	.	.	.	.
Vendor	.	.	.	.	.	.	.	.	.	.	.CU	.	.CU	.CU	.	.	.	.	.	.	.	.	.	.	.
Special Purpose																									
Cost Standards	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.CU	.	.	.
Drill	.	.	.	.	.	.	.	.	.	.	.CU	.	.CU	.	.	.	.	.	.	.CU	.	.	.	.	.CU
Fee	.U	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FOIA Request	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Open "TMI" Item	.	.	.	.	.	.	.	.	.	.	.U	.	.	.U	.	.	.	.	.	.U	.	.	.	.	.
Patent	.	.	.	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Training	.U	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Union	.	.	.	.	.	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
General Purpose																									
Work Item	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Advisor/Consultant/Expert	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Committee	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Inquiry	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Meeting	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Project	.CU	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Key:
C = Create
U = Update
*R = Reporting and Access (See Enterprise Model)

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*The assignment of proposed data maintenance responsibility to specific NRC Offices is preliminary. These assignments are based on information developed during the preparation of the Enterprise Model, Data Dictionary, and Data Model, and are likely to be modified as a result of further analysis conducted with the implementation of our Phase II (Infrastructure) recommendation.

APPENDIX E
APPLICATION SUBJECT AREAS AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
Allegation Tracking	ALLEGATION	ALLEGATION
	ALLEGATION	INVESTIGATION (CASE)
	ENFORCEMENT	ENFORCEMENT ACTION
	ENFORCEMENT	VIOLATION
	EVENTS	EVENT
	INSPECTION	INSPECTION
	OPERATOR	REACTOR OPERATOR
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE - NRC
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	PROCUREMENT	PROVISION AGREEMENT
	RADIOACTIVE MATERIAL	RADIOACTIVE MATERIAL (ACCT)
	REGULATORY	REGULATION
	SITE	FACILITY (NON-REACTOR)
	SITE	UNIT
	VENDOR	VENDOR
Enforcement Action Tracking	ALLEGATION	ALLEGATION
	ALLEGATION	INVESTIGATION (CASE)
	COMMISSION	COMMISSION ORDER
	ENFORCEMENT	ENFORCEMENT ACTION
	ENFORCEMENT	VIOLATION
	EVENTS	EVENT
	FINANCE/ACCOUNTING	G/L ACCOUNT
	HARDWARE	SYSTEM
	INSPECTION	INSPECTION
	INSPECTION	INSPECTION MODULE
	INSPECTION	OUTSTANDING ITEM (INSPECTION)
	LEGAL	APPEAL
	LEGAL	CASE (LEGAL)
	LICENSE	LICENSEE
	LICENSING ACTION	LICENSING ACTION
	OPERATOR	REACTOR OPERATOR
	PERSONNEL	EMPLOYEE (NRC)
	RADIOACTIVE MATERIAL	PACKAGE
	RADIOACTIVE MATERIAL	RADIOACTIVE MATERIAL (ACCT)
	REGULATORY	REGULATION
Events Reporting & Analysis	EVENTS	EVENT
	EVENTS	EXPOSURE
	EVENTS	RELEASE
	EVENTS	THREAT
	HARDWARE	COMPONENT
	HARDWARE	SYSTEM
	RADIOACTIVE MATERIALS	PACKAGE
	RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL (ACCT)
	RADIOACTIVE MATERIALS	SHIPMENT
	RESEARCH PROGRAM	INTERAGENCY AGREEMENT-TECH

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APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS
AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	RESEARCH PROGRAM	RESEARCH PROGRAM
	SITE	FACILITY (NON-REACTOR)
	SITE	UNIT
Exposure Monitoring	EVENTS	EVENT
	EVENTS	EXPOSURE
	EVENTS	RELEASE
	OPERATOR	REACTOR OPERATOR
	RADIOACTIVE MATERIALS	PACKAGE
	RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL (ACCT)
	RESEARCH PROGRAM	INTERAGENCY AGREEMENT-TECH
	RESEARCH PROGRAM	RESEARCH PROGRAM
	SITE	FACILITY (NON-REACTOR)
	SITE	SITE
	SITE	UNIT
	STATE	DEMOGRAPHICS
	STATE	POWER UTILITY
	STATE	STATE
Financial Administration	BUILDING/PROPERTY	BUILDING (NRC)
	BUILDING/PROPERTY	PROPERTY (NRC)
	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	DECISION UNIT
	FINANCE/ACCOUNTING	G/L ACCOUNT
	FINANCE/ACCOUNTING	TRAVEL
	GENERAL PURPOSE ENTITIES	COMMITTEE
	GENERAL PURPOSE ENTITIES	MEETING
	GENERAL PURPOSE ENTITIES	PROJECT
	GENERAL PURPOSE ENTITIES	WORK ITEM
	ORGANIZATION	ORGANIZATION
	ORGANIZATION	POSITION
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	PROCUREMENT	PROCUREMENT AGREEMENT
	PROCUREMENT	PROCUREMENT REQUEST
General Purpose	GENERAL PURPOSE ENTITIES	ADVISOR/EXPERT/CONSULTANT
	GENERAL PURPOSE ENTITIES	COMMITTEE
	GENERAL PURPOSE ENTITIES	INQUIRY
	GENERAL PURPOSE ENTITIES	MEETING
	GENERAL PURPOSE ENTITIES	PROJECT
	GENERAL PURPOSE ENTITIES	WORK ITEM
Hearing Status	COMMISSION	COMMISSION ORDER
	ISSUES	BACKFIT ISSUE
	LEGAL	APPEAL
	LEGAL	CASE (LEGAL)
	LEGAL	HEARING
	LICENSE	LICENSE

APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	LICENSE	LICENSEE
	LICENSING ACTION	LICENSING ACTION
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	REGULATORY	REGULATION
Inspection Control	EVENTS	EVENT
	EVENTS	RELEASE
	HARDWARE	COMPONENT
	HARDWARE	DEFICIENCY
	HARDWARE	SYSTEM
	HARDWARE	TEST
	INSPECTION	INSPECTION
	INSPECTION	INSPECTION MODULE
	INSPECTION	INSPECTION PROGRAM
	INSPECTION	OUTSTANDING ITEM (INSPECTION)
	LICENSE	LICENSE
	LICENSE	LICENSEE
	LICENSE	TECH SPEC/LICENSE CONDITION
	LICENSING ACTION	LICENSING ACTION
	OPERATOR	REACTOR OPERATOR
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE - NRC
	PROCUREMENT	PROVISION AGREEMENT
	RADIOACTIVE MATERIALS	PACKAGE
	RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL (ACCT)
	REGULATORY	GUIDE/STANDARD (NRC)
	SITE	FACILITY (NON-REACTOR)
	SITE	SITE
	SITE	UNIT
	SPECIAL PURPOSE ENTITIES	DRILL
	SPECIAL PURPOSE ENTITIES	FEE
Inventory Management	BUILDING/PROPERTY	PROPERTY (NRC)
	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	G/L ACCOUNT
	ORGANIZATION	ORGANIZATION
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	PROCUREMENT	PROVISION REQUEST
Investigation Reporting	ALLEGATION	ALLEGATION
	ALLEGATION	INVESTIGATION (CASE)
	ENFORCEMENT	ENFORCEMENT ACTION
	ENFORCEMENT	VIOLATION
	GENERAL PURPOSE ENTITIES	WORK ITEM
	INSPECTION	INSPECTION
	LEGAL	APPEAL
	LEGAL	CASE (LEGAL)
	LEGAL	HEARING

APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS
AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	LICENSE	LICENSE APPLICANT
	LICENSE	LICENSEE
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE - NRC
	PERSONNEL	GRIEVANCE
	VENDOR	VENDOR
Issues (Safety Related)	EVENTS	EVENT
	HARDWARE	COMPONENT
	HARDWARE	STRUCTURE
	HARDWARE	SYSTEM
	INSPECTION	INSPECTION
	ISSUES	BACKFIT ISSUE
	ISSUES	BULLETIN
	ISSUES	GENERIC/US ISSUE
	ISSUES	ISSUE (GENERAL)
	LEGAL	CASE (LEGAL)
	LEGAL	HEARING
	LICENSE	LICENSE
	OPERATOR	REACTOR OPERATOR
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE - NRC
	RADIOACTIVE MATERIAL	PACKAGE
	RADIOACTIVE MATERIAL	RADIOACTIVE MATERIAL (ACCT)
	REGULATORY	GUIDE/STANDARD (NRC)
	REGULATORY	REGULATION
	RESEARCH PROGRAM	INTERAGENCY AGREEMENT-TECH
	RESEARCH PROGRAM	RESEARCH PROGRAM
	SITE	FACILITY (NON-REACTOR)
	SITE	UNIT
	SPECIAL PURPOSE ENTITIES	COST STANDARDS
	SPECIAL PURPOSE ENTITIES	OPEN "TMI" ITEM
	STATE	DEMOGRAPHICS
	STATE	POWER UTILITY
	STATE	PUBLIC UTILITY COMMISSION
	STATE	STATE
Licensee Performance Evaluation	ALLEGATION	ALLEGATION
	ALLEGATION	INVESTIGATION (CASE)
	ENFORCEMENT	ENFORCEMENT ACTION
	ENFORCEMENT	VIOLATION
	EVENTS	EVENT
	INSPECTION	INSPECTION
	LICENSE	LICENSE
	LICENSE	LICENSEE
	LICENSING ACTION	LICENSEE COMMITTMENT
	LICENSING ACTION	LICENSING ACTION
	OPERATOR	EXAMINATION (OPERATOR)

APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	OPERATOR	REACTOR OPERATOR
	SITE	FACILITY (NON-REACTOR)
	SITE	UNIT
Manpower Reporting	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	PLANNED ACCOMPLISHMENT
	INSPECTION	INSPECTION
	INSPECTION	OUTSTANDING ITEM (INSPECTION)
	ISSUES	GENERIC/US-ISSUE
	ISSUES	ISSUE (GENERAL)
	LICENSING ACTION	LICENSING ACTION
	LICENSING ACTION	OPEN ITEM (LICENSING)
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE (NRC)
Nuclear Facilities Licensing	ALLEGATION	ALLEGATION
	COMMISSION	COMMISSION ORDER
	ENFORCEMENT	ENFORCEMENT ACTION
	ENFORCEMENT	VIOLATION
	EVENTS	EVENT
	INSPECTION	INSPECTION
	ISSUES	GENERIC ISSUE
	LEGAL	APPEAL
	LEGAL	CASE (LEGAL)
	LICENSE	LICENSE
	LICENSE	LICENSE APPLICANT
	LICENSE	LICENSEE
	LICENSE	TECH SPEC/LICENSE CONDITION
	LICENSING ACTION	LICENSING ACTION
	LICENSING ACTION	OPEN ITEM (LICENSING)
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL (ACCT)
	REGULATORY	GUIDE/STANDARD (NRC)
	REGULATORY	REGULATION
	SITE	FACILITY (NON-REACTOR)
	SITE	SITE
	SPECIAL PURPOSE ENTITIES	FEE
	STATE	DEMOGRAPHICS
	STATE	STATE
	VENDOR	VENDOR
Nuclear Facilities Status Report	EVENTS	EVENT
	EVENTS	RELEASE
	EVENTS	THREAT
	RADIOACTIVE MATERIALS	FUEL ASSEMBLY
	RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL (ACCT)
	SITE	FACILITY (NON-REACTOR)
	SITE	SITE

APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	SITE	UNIT
Nuclear Incident Estimating	EVENTS	EVENT
	EVENTS	RELEASE
	HARDWARE	SYSTEM
	RADIOACTIVE MATERIALS	PACKAGE
	RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL (ACCT)
	RADIOACTIVE MATERIALS	SHIPMENT
	RESEARCH PROGRAM	RESEARCH PROGRAM
	SITE	FACILITY (NON-REACTOR)
	SITE	SITE
	SITE	UNIT
	STATE	DEMOGRAPHICS
Nuclear Material Tracking	GENERAL PURPOSE ENTITIES	PROJECT
	LICENSE	LICENSE
	LICENSE	LICENSEE
	RADIOACTIVE MATERIALS	FUEL ASSEMBLY
	RADIOACTIVE MATERIALS	PACKAGE
	RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL (ACCT)
	RADIOACTIVE MATERIALS	SHIPMENT
	SPECIAL PURPOSE ENTITIES	FOIA REQUEST
	STATE	DEMOGRAPHICS
	STATE	STATE
Operator Licensing	ENFORCEMENT	VIOLATION
	LEGAL	APPEAL
	LEGAL	CASE (LEGAL)
	LICENSE	LICENSE
	LICENSE	LICENSE APPLICANT
	LICENSE	LICENSE APPLICATION
	OPERATOR	EXAMINATION (OPERATOR)
	OPERATOR	REACTOR OPERATOR
	ORGANIZATION	ORGANIZATION
	REGULATORY	REGULATION
	SITE	UNIT
	SPECIAL PURPOSE ENTITIES	FEE
Payroll	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	G/L ACCOUNT
	ORGANIZATION	ORGANIZATION
	ORGANIZATION	POSITION
	PERSONNEL	EMPLOYEE (NRC)
	PERSONNEL	PERSONNEL ACTION
Personnel Management	ALLEGATION	INVESTIGATION (CASE)
	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	PLANNED ACCOMPLISHMENT

APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	GENERAL PURPOSE ENTITIES	PROJECT
	GENERAL PURPOSE ENTITIES	WORK ITEM
	LEGAL	CASE (LEGAL)
	LEGAL	HEARING
	ORGANIZATION	ORGANIZATION
	ORGANIZATION	POSITION
	PERSONNEL	EMPLOYEE - NRC
	PERSONNEL	GRIEVANCE
	PERSONNEL	PERSONNEL ACTION
	SPECIAL PURPOSE ENTITIES	TRAINING
	SPECIAL PURPOSE ENTITIES	UNION
Personnel Security	BUILDING/PROPERTY	PHYSICAL SECURITY (NRC)
	PERSONNEL	EMPLOYEE (NRC)
	PERSONNEL	RECRUIT/APPLICANT
Plant Status Report	EVENTS	EVENT
	RADIOACTIVE MATERIAL	FUEL ASSEMBLY
	RADIOACTIVE MATERIAL	RADIOACTIVE MATERIAL (ACCT)
	SITE	FACILITY (NON-REACTOR)
	SITE	SITE
	SITE	UNIT
Policy Guidance	COMMISSION	COMMISSION ORDER
	COMMISSION	COMMISSION PAPER
	FINANCE/ACCOUNTING	DECISION UNIT
	FINANCE/ACCOUNTING	PLANNED ACCOMPLISHMENT
	GENERAL PURPOSE ENTITIES	COMMITTEE
	GENERAL PURPOSE ENTITIES	INQUIRY
	ISSUES	GENERIC/US-ISSUE
	ISSUES	ISSUE (GENERAL)
	LEGAL	CASE (LEGAL)
	LEGAL	DECISION
	REGULATORY	INTERNATIONAL AGREEMENT
	REGULATORY	REGULATION
	REGULATORY	STATUTE
Procurement Control	BUILDING/PROPERTY	PROPERTY (NRC)
	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	G/L ACCOUNT
	GENERAL PURPOSE ENTITIES	ADVISOR/EXPERT/CONSULTANT
	GENERAL PURPOSE ENTITIES	PROJECT
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE (NRC)
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	PROCUREMENT	PROVISION AGREEMENT
	PROCUREMENT	PROVISION REQUEST

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APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS
AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
Project Control	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	DECISION UNIT
	FINANCE/ACCOUNTING	PLANNED ACCOMPLISHMENT
	GENERAL PURPOSE ENTITIES	PROJECT
	GENERAL PURPOSE ENTITIES	WORK ITEM
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE (NRC)
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	SPECIAL PURPOSE ENTITIES	TRAINING
Reactor Construction Reporting	ALLEGATION	ALLEGATION
	ENFORCEMENT	DEVIATION
	ENFORCEMENT	ENFORCEMENT ACTION
	ENFORCEMENT	VIOLATION
	EVENTS	EVENT
	INSPECTION	INSPECTION
	ISSUES	BACKFIT ISSUE
	ISSUES	GENERIC/US-ISSUE
	LEGAL	CASE (LEGAL)
	LEGAL	HEARING
	LICENSE	LICENSE
	LICENSE	LICENSE APPLICATION
	LICENSE	LICENSEE
	LICENSING ACTION	LICENSING ACTION
	SITE	UNIT
	VENDOR	DESIGN
	VENDOR	VENDOR
Reactor Licensing	ALLEGATION	ALLEGATION
	COMMISSION	COMMISSION ORDER
	ENFORCEMENT	ENFORCEMENT ACTION
	ENFORCEMENT	VIOLATION
	EVENTS	EVENT
	FINANCE/ACCOUNTING	PLANNED ACCOMPLISHMENT
	INSPECTION	INSPECTION
	ISSUES	BACKFIT ISSUE
	ISSUES	BULLETIN
	ISSUES	GENERIC/US-ISSUE
	LEGAL	APPEAL
	LEGAL	CASE (LEGAL)
	LICENSE	LICENSE
	LICENSE	LICENSE APPLICANT
	LICENSE	LICENSEE
	LICENSE	TECH SPEC/LICENSE CONDITION
	LICENSING ACTION	LICENSING ACTION
	LICENSING ACTION	OPEN ITEM (LICENSING)
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	REGULATORY	GUIDE/STANDARD (NRC)

APPENDIX E (cont'd)
APPLICATION SUBJECT AREAS AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	REGULATORY	REGULATION
	SITE	SITE
	SITE	UNIT
	SPECIAL PURPOSE ENTITIES	FEE
	SPECIAL PURPOSE ENTITIES	OPEN "TMI" ITEM
	STATE	DEMOGRAPHICS
	STATE	ECONOMIC INFORMATION
	STATE	POWER UTILITY
	STATE	PUBLIC UTILITY COMMISSION
	VENDOR	VENDOR
Regulatory Reporting	COMMISSION	COMMISSION ORDER
	COMMISSION	COMMISSION PAPER
	GENERAL PURPOSE ENTITIES	PROJECT
	GENERAL PURPOSE ENTITIES	WORK ITEM
	ISSUES	BACKFIT ISSUE
	ISSUES	GENERIC/US-ISSUE
	LEGAL	CASE (LEGAL)
	REGULATORY	INTERNATIONAL AGREEMENT
	REGULATORY	REGULATION
	REGULATORY	STATUTE
	STATE	STATE
Research (Project Control)	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	DECISION UNIT
	FINANCE/ACCOUNTING	PLANNED ACCOMPLISHMENT
	GENERAL PURPOSE ENTITIES	PROJECT
	GENERAL PURPOSE ENTITIES	WORK ITEM
	ISSUES	GENERIC/US-ISSUE
	ISSUES	ISSUE (GENERAL)
	ORGANIZATION	ORGANIZATION
	PERSONNEL	EMPLOYEE (NRC)
	PROCUREMENT	CONTRACTOR/PROVIDER (NRC)
	RESEARCH PROGRAM	RESEARCH PROGRAM
	SPECIAL PURPOSE ENTITIES	COST STANDARDS
Special Purpose	SPECIAL PURPOSE ENTITIES	COST STANDARDS
	SPECIAL PURPOSE ENTITIES	DRILL
	SPECIAL PURPOSE ENTITIES	FEE
	SPECIAL PURPOSE ENTITIES	FOIA REQUEST
	SPECIAL PURPOSE ENTITIES	OPEN "TMI" ITEM
	SPECIAL PURPOSE ENTITIES	PATENT
	SPECIAL PURPOSE ENTITIES	TRAINING
	SPECIAL PURPOSE ENTITIES	UNION
taffing	FINANCE/ACCOUNTING	BUDGET
	ORGANIZATION	ORGANIZATION
	ORGANIZATION	POSITION

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APPLICATION SUBJECT AREAS
AND RELATED DATA ENTITIES

APPLICATION SUBJECT AREA	LOGICAL DATABASE	ENTITY
	PERSONNEL	EMPLOYEE (NRC)
	PERSONNEL	RECRUIT/APPLICANT
	SPECIAL PURPOSE ENTITIES	TRAINING
Systems/Component Analysis	EVENTS	EVENT
	HARDWARE	COMPONENT
	HARDWARE	SYSTEM
	HARDWARE	TEST
	INSPECTION	INSPECTION
	RADIOACTIVE MATERIAL	PACKAGE
	REGULATORY	GUIDE/STANDARD (NRC)
	REGULATORY	REGULATION
	RESEARCH PROGRAM	INTERAGENCY AGREEMENT-TECH
	RESEARCH PROGRAM	RESEARCH PROGRAM
	SITE	FACILITY (NON-REACTOR)
	SITE	SITE
	SITE	UNIT
	VENDOR	VENDOR
Travel Control	FINANCE/ACCOUNTING	BUDGET
	FINANCE/ACCOUNTING	G/L ACCOUNT
	FINANCE/ACCOUNTING	TRAVEL
	GENERAL PURPOSE ENTITIES	WORK ITEM
	PERSONNEL	EMPLOYEE (NRC)
	SPECIAL PURPOSE ENTITIES	PROJECT

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BIBLIOGRAPHIC DATA SHEET

SEE INSTRUCTIONS ON THE REVERSE

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Corporate Data Network (CDN) Data Requirements Task
Vol. 4: Preliminary Strategic Data Plan

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4 DATE REPORT COMPLETED

MONTH	YEAR
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13. ABSTRACT *(200 words or less)*

The NRC has initiated a multi-year program to centralize its information processing in a Corporate Data Network (CDN). The new information processing environment will include shared databases, telecommunications, office automation tools, and state-of-the-art software. Touche Ross and Company was contracted with to perform a general data requirements analysis for shared databases and to develop a preliminary plan for implementation of the CDN concept. The Enterprise Model (Vol. 1) provided the NRC with agency-wide information requirements in the form of data entities and organizational demand patterns as the basis for clustering the entities into logical groups. The Data Dictionary (Vol. 2) provided the NRC with definitions and example attributes and properties for each entity. The Data Model (Vol. 3) defined logical databases and entity relationships within and between databases. The Preliminary Strategic Data Plan (Vol. 4) prioritized the development of databases and included a workplan and approach for implementation of the shared database component of the Corporate Data Network.

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